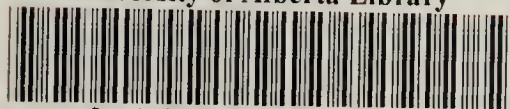


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BLUE JAY

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Editors: Anna and Ted Leighton, 328 Saskatchewan Crescent West, Saskatoon, SK S7M 0A4, Canada. E-mail : leighton@sasktel.net

Associate Editors : Mark Brigham, Rainer Ebel, Marlene Evans, Ronald Hooper, Stuart Houston, Joanne Marchand, Josef Schmutz, Robert Warnock.

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Back - Osprey by Brenton Terry

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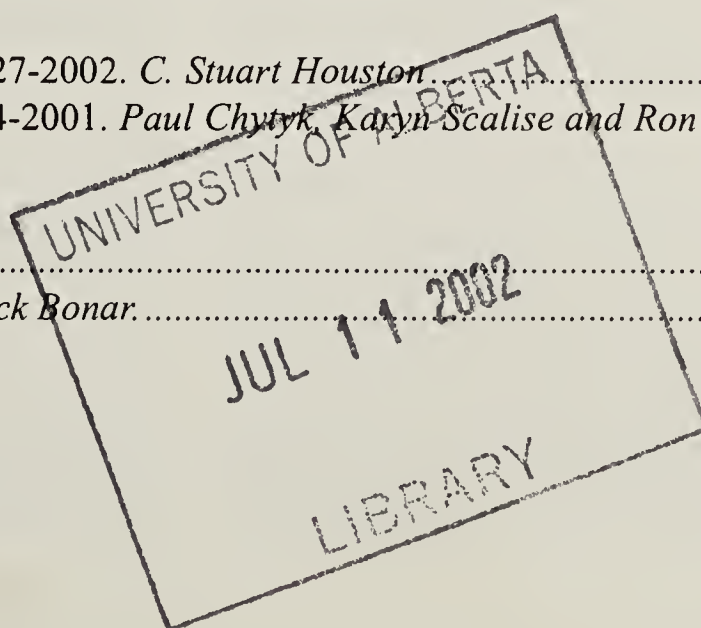
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BIRDS

BIRDS OF THE QU'APPELLE- SECOND SUPPLEMENT

RONALD R. HOOPER, Box 757, Ft. Qu'Appelle, SK S0G 1S0

Manley Callin's "Birds of the Qu'Appelle", published in 1980, reported 287 species in the vicinity of the Qu'Appelle Valley from just west of Pasqua Lake to the Manitoba border.² Manley continued to keep records and after his death Stuart and Mary Houston compiled "Additions to Callin's Birds of the Qu'Appelle", which was published in 1986.⁵ This supplement brought the total number of species for the area to 298. Splitting the towhees into two species made it into 299. There were, in addition, 5 hypothetical species.

The members of the Fort Qu'Appelle Branch of Nature Saskatchewan (of which Manley was an active member), have continued to keep track of important records in the Fort Qu'Appelle area. John Pollock has been avidly watching and banding birds in the Whitewood and Round Lake areas, and has submitted some excellent records from the east end of the valley. Boyd Metzler, who annually travels the eastern part of the Qu'Appelle River by canoe, also gave some good records. Additional records came from Robert Kreba of Regina, who went birding in the area quite often. Other records were gleaned from the Christmas Bird Count reports in *Blue Jay*.

The following list adds 11 confirmed species, bringing the total to 310. Three hypothetical species were added: Black Vulture, Black-chinned Hummingbird and Carolina Wren. Three of the previous unconfirmed species are still hypothetical: Iceland Gull, Red-shouldered Hawk and Swallowtail Kite. The only additional

breeding records are for Turkey Vulture and Common Raven. 295 of the species have been recorded within 25 km of Fort Qu'Appelle. In many cases there are earlier or later dates than previously published. There are also some changes concerning the increase or decrease of some species.

Records from December to February are called winter records. Many are species attempting to winter that often don't make it through until spring; some are injured birds unable to migrate.

Abbreviations used -* Hypothetical species (still unconfirmed for Saskatchewan). -# New species for the area. -BM Boyd Metzler. -CBC Seen on a Christmas Bird Count. -JM Jean McKenna. -JP John Pollock. -LR Lorne Rowell. -ML Maurice Lindgren. -PA Peter Ashcroft. -PB Phyllis Bordass. -RH Ronald Hooper. -RK Robert Kreba.

The arrangement of species is according to that used in Manley Callin's book, "Birds of the Qu'Appelle". Common names comply with those in the 8th Edition of the Field Checklist of Saskatchewan Birds published by Nature Saskatchewan in April 2002.

RED-THROATED LOON. *2nd record*. 3 swimming near the east end of Echo Lake, May 6, 1995. The red throats were clearly seen (ML).

RED-NECKED GREBE. *Status change*. Now rarely seen.

EARED GREBE. *Early spring record* -1, west end of Echo Lake, April 13, 1999 (RH).

PIED-BILLED GREBE. *Winter record* -1, in Qu'Appelle River at Fort Qu'Appelle (RH,CBC). *Early spring record*-1, northeast of Whitewood, April 5, 1998 (BM).

AMERICAN WHITE PELICAN. *Early spring record* - 60, east end of Muscowpetung Reserve, April 7, 1996. *Winter records* -1, near Lebret Bridge, Dec. 1 until Dec. 22, 1997 (RH,CBC); 1, west end of Echo Lake, Dec. 18, and 20, 1998 (LR, PB, and RH,CBC). It was reported that the bird was later found dead, and had only 1 wing.

DOUBLE-CRESTED CORMORANT. *Early spring record* - 4, west end of Echo Lake, April 11, 1999 (RH). *Late winter record* - 1, west of Lebret Bridge, Dec. 2, 1996 (RH). *Breeding* - Nesting in aspens on the south side of Round Lake, in recent years. In the 1970s they nested east of Round Lake (BM).

GREAT BLUE HERON. *Tie for early spring date* -1, east of Katepwa Dam, April 4, 1997 (JM, PA). *Winter records* -1, Qu'Appelle River, east of Fort Qu'Appelle, Nov.9,1996 (RK); 1, Crooked Lake, Dec. 1992 (CBC); 1, found dead, north side of Qu'Appelle River near Fort Qu'Appelle, Jan. 29,1989 (ML).

GREAT EGRET. *Recent records* -1, along river east of Katepwa Lake, May 9,1987 (RH); 1, at Katepwa Dam, May 31, 1991 (RH); 2, Pipestone Valley south of Grenfell, April 25,1996, and May 3,1996 (BM, JP).

TUNDRA SWAN. *Winter records*- During CBC at Fort Qu'Appelle, 1992 and 1993; Crooked Lake, 1996; and Round Lake, 1998. *Latest winter record* - 1, east end of Katepwa Lake, early Feb.1997 (PA).

TRUMPETER SWAN. *Status change* - Individuals and small groups have been seen and heard in the Fort Qu'Appelle area in fall,

early winter, and spring from 1988 and on. This corresponds to their summer occurrence in Greenwater Park since 1986. *Early fall record*-12, at Bluebill Bay of Echo Lake, Oct.28, 1988 (RH). *Late winter record*-1, west end of Echo Lake, Jan.1,1992 (CBC, RH). *Early spring record*-4, Fort Qu'Appelle, March 25, 2000 (RH).

CANADA GOOSE. *Status change*. Now a common summer resident again. *Winter records*- A few stragglers or wounded birds remain until nearly Christmas normally. When there is little snow many stay until early January. (Thousands stayed until early Jan. 1998, and in Jan. 2000, when 150 stayed throughout the winter near Fort Qu'Appelle) (RH).

GREATER WHITE-FRONTED GOOSE. *Early spring record*-50 (flying north and calling), Fort Qu'Appelle, March 23, 2000,(RH).

SNOW GOOSE. *Early spring record*-800 (of both white and blue phases), Fort Qu'Appelle, March 27, 2000 (RH). *Late spring record*-2, on slough south of Balcarres, May 21, 1998, (RH). *Winter record*-1 (blue phase), Fort Qu'Appelle, Dec. 12, until Dec.22, 1997, (CBC, RH). *Status change* - Now abundant in spring and fall migrations. Sometimes a thousand birds or more can be seen in one field at once.

ROSS' GOOSE. *Recent records* - In the winter of 1987-1988 one spent the winter with Harold Ross's tame geese (as if he knew it was Ross's place!) north of Fort Qu'Appelle, but a stray dog killed it in the spring. 1, at the west end of Echo Lake, April 12,1989 (Frank Brazier).

MALLARD. *Recent overwintering* - Normally about 65 overwinter in the river between Echo and Pasqua Lakes. I suspect that they are hardy Mallards from the north rather than local ones. In the mild winter of 1999-2000 about 250 overwintered.

AMERICAN BLACK DUCK. *Recent record* - 1, Qu'Appelle Valley, north of Whitewood, July 29, 1993 (JP). *Winter record* - 1, Round Lake, Dec., 1999 (CBC).

GADWALL. *Winter records* - CBC records - Crooked Lake, 1996 and 1997; Round Lake, 1997, and Fort Qu'Appelle, 1999.

GREEN-WINGED TEAL *Early spring record* - 6, Qu'Appelle River at Fort Qu'Appelle, April 1, 1997 (RH). *Winter records* - CBC records for Fort Qu'Appelle, Dec. 24, 1997, and Crooked Lake, Dec., 1999.

CINNAMON TEAL. *Recent record* - 1 male, with a male Blue-winged Teal, in the Qu'Appelle River near Fort Qu'Appelle, May 9, 1991 (RH).

WOOD DUCK. *Early spring record* - 4, Round Lake area, April 14, 1996 (JP). *First winter record* - 2, Round Lake, Dec. 19, 1998 (CBC).

RING-NECKED DUCK. *Early spring record* - 2, west of dam at Fort Qu'Appelle, March 13, 1995 (RH). *Late winter record* - 1, Crooked Lake, Dec. 25, 1989 (CBC).

GREATER SCAUP. *Recent records* - 1 (seen with binoculars while flying, the long white wing stripe was clearly seen), Fort Qu'Appelle, Nov. 22, 1988 (RH); 2, Qu'Appelle River west of Echo Lake, Dec. 2, 1989 (RH); 30, Fort Qu'Appelle, April 30, 1991 (RH).

LESSER SCAUP. *Earliest spring record* - 4, Qu'Appelle River west of Echo Lake, March 26, 1992 (RH).

COMMON GOLDENEYE. *Possible nesting* - 1 female came out of a duck nest box on a pole, near Bluebill Bay, west of Fort Qu'Appelle, June 14, 1994 (RH).

BARROW'S GOLDENEYE. *Recent records* - 2, Fort Qu'Appelle, Nov. 29, 1991

(RH). 1 female (vertical forehead and decreased white in wingband clearly seen), Qu'Appelle River, west of Echo Lake, Dec. 22, 1993, until Jan. 3, 1994 (CBC, RH, RK); 1 female with female Common Goldeneye, on sandbar near east end of Echo Lake, June 18, 1994 (RH); 1 pair, west of dam near Fort Qu'Appelle, April 12, 1997 (RH).

BUFFLEHEAD *Winter records* - CBC records - Fort Qu'Appelle, 1991, 1992, 1994, and 1996; Indian Head, 1994; Crooked Lake, 1996 and 1999; Round Lake, 1999. *Latest winter record* - 1, Qu'Appelle River west of Echo Lake, Feb. 15, 1997 (RH, RK).

LONG-TAILED DUCK. *Recent records* - 1 female, with flock of Ring-necked Ducks, in Qu'Appelle River near Lebret Bridge, Nov. 2, 1996 (L. Brass) (RH); 1, Pasqua Lake, Nov. 9, 1996 (RK); 1, east end of Mission Lake, Nov. 9, 1996 (RK). 4, Katepwa Lake, Dec. 1, 1998 (JP, BM).

#HARLEQUIN DUCK. *New species* - 1 female or immature, in Qu'Appelle River at Fort Qu'Appelle, Nov. 13, 1991, until Dec. 14, 1991 (CBC, RH); 1 female, by Katepwa dam, Sept. 26, 1995 (N. Henderson).

BLACK SCOTER. *Additional record* - 1 male, east end of Katepwa Lake, Dec. 2, 1998 (RH).

WHITE-WINGED SCOTER. *Late fall record* - 1 immature, Fort Qu'Appelle, Dec. 4, 1992 (RH).

SURF SCOTER. *Additional record* - 1 female, east end of Echo Lake, Dec. 2, 1998 (RH).

RUDDY DUCK. *Winter records* - 1 male, in Qu'Appelle River, south east of Lebret, Dec. 6, 1995 (RH); 1 male, east end of Pasqua Lake, Dec. 7, 1997, until Jan. 5, 1998 (CBC, RH).

HOODED MERGANSER. *Early spring record* - 1, Round and Crooked lakes area,

April 12, 1997 (BM, JP). *Late spring record* - 1 male, west end of Echo Lake, May 29, 1989 (RH). *First summer record* - 1 female, Qu'Appelle Valley, north of Whitewood, July 29, 1993 (JP). *Late winter record* - 1 female, west of Echo Lake, Jan. 3, 1999 (CBC, RH).

COMMON MERGANSER. *Breeding records* - 1 female and 10 young, in Qu'Appelle River east of number 9 highway, 1994; other family groups seen between 1994 and 2000 (BM).

RED-BREASTED MERGANSER. *Early spring record* - 1 female, Fort Qu'Appelle, March 21, 1999 (RH).

TURKEY VULTURE. *Winter records* - 1, Crooked Lake, Dec. 30, 1993 (CBC); 1, Crooked Lake, Dec. 31, 1994 (CBC); *Second earliest spring record* - 2 along Kaposvar Creek, SE of Esterhazy, April 4, 2002 (Debbie Pask); *Two nesting records* - young in old barn SE of Lipton, summer 2001 (Irvin Huber) and 2 eggs in granary in early May 2002, along Kaposvar Creek SE of Esterhazy (Debbie Pask).

*#BLACK VULTURE. *New species* - 1, 1.5 km west of Fort Qu'Appelle, hovering above hill-tops on south side of the valley, all black beneath, except for white patches on wing-tips, short spread-out tail, May 25, 1992 (RH). First sighting for Saskatchewan? Sometimes immature Turkey Vultures are wrongly reported to be Black Vultures.

NORTHERN GOSHAWK. *Latest spring record* - 1 flying northward, Fort Qu'Appelle, April 22, 1996 (RH).

SHARP-SHINNED HAWK. *Winter record* - 1, Indian Head, Dec. 30, 1988 (CBC).

COOPER'S HAWK. *Winter record* - 1, Round Lake, Dec., 1996 (CBC).

RED-TAILED HAWK. *Late Winter record* - 1, Fort Qu'Appelle, Dec. 22, 1997 (D. Harman, CBC).

FERRUGINOUS HAWK. *Recent records* - One or two per year seen in the west part of the area (RH). 1, 8 km north of Whitewood, May 22, 1997 (JP); 1, 9 km south of Whitewood, April 30, 2000 (JP).

GOLDEN EAGLE. *Summer records* - 1, in the Qu'Appelle Valley north of Whitewood, July 16, 1994 (JP); also in the same area, 2 soaring, Aug. 9, 1994 (BM); 2 soaring, Aug. 14, 1994 (BM).

BALD EAGLE. *Late summer record* - 2, at a dead cow, with 8 Turkey Vultures, also 2 Golden Eagles flying nearby, Qu'Appelle Valley east of number 9 highway, Aug. 14, 1994 (BM).

NORTHERN HARRIER. *Winter record* - 1, Indian Head, Dec. 27, 1988 (CBC).

OSPREY. *Summer records* - 1, Marieval, June 14, 1990 (JP); 1, north shore of Echo Lake, Aug. 4, 2000 (RH).

GYRFALCON. *Recent records* - CBC records - 1, Indian Head, Jan. 3, 1996; 1, gray phase, Fort Qu'Appelle, Dec. 17, 1999; 1 gray phase, Fort Qu'Appelle, Dec. 15, 2001.

AMERICAN KESTREL. *Late fall record* - 1, Round Lake, Oct. 26, 1991 (JP). *First winter record* - 1, Indian Head, Dec. 27, 1998 (CBC)

SHARP-TAILED GROUSE. *Status change* - These have become very scarce in the Fort Qu'Appelle area in the past ten years.

GRAY PARTRIDGE. *Status change* - These have become very scarce in the Fort Qu'Appelle area in the past ten years.

#WILD TURKEY. *New species*. Introduced a few km north of Pasqua Lake in 1986. About 20 were running wild in the area in January, 1989. In 1986, 6 were also released near Rocanville. Sightings - 1, Round Lake, Sept. 1989 (JP); 2, Fort Qu'Appelle, Dec. 15 and 17, 1991 (CBC); 1, Fort Qu'Appelle,

Dec., 1992 (CBC). Introduced Wild Turkeys and pheasants only exist for a few years in our area until they are extirpated.

YELLOW RAIL. *Early spring record*- 2 heard, Lebret Marsh, May 15, 1992 (RH).

AMERICAN COOT. *Early spring record*- 1, April 4, 1990, Fort Qu'Appelle (RH).

SEMIPALMATED PLOVER. *Late fall record* - 2, east shore of Echo Lake (N. Henderson, D. Hjertas, RH).

KILLDEER. *Winter record*- 1, Crooked Lake, Dec. 1997 (CBC).

COMMON SNIPER. *First winter record*- 1, Along Qu'Appelle River, east of Pasqua Lake, Dec. 5, 1998 (RH).

SOLITARY SANDPIPER. *Early spring record*- 1, Fort Qu'Appelle, April 24, 1989 (RH).

GREATER YELLOWLEGS. *Early spring record*- 3, Lipton, April 9, 1991 (RH).

DUNLIN. *Early spring record*- 1, 8 km south of Whitewood, May 4, 1996 (JP).

SHORT-BILLED DOWITCHER. *Early spring record*- 4, 8 km south of Whitewood, May 4, 1996 (JP).

LONG-BILLED DOWITCHER. *Early spring record*- 10, Whitewood, April 22, 1990 (JP).

BUFF-BREASTED SANDPIPER. *Recent record* - 5, near a flock of Golden Plovers, shore of "Balcarres Slough" south of Balcarres, May 21, 1998 (RH).

HUDSONIAN GODWIT. *Early spring record*- 13, Whitewood, April 28, 1990 (JP).

PARASITIC JAEGER. *Second record* -1, among hundreds of Ring-billed Gulls, east end

of Echo Lake, Sept. 30, 1995 (M. Belcher, RH).

GLAUCOUS GULL. *Additional records* - 8 adults (large white gulls with no black on wing-tips, and a distinctly lower call), flying south of Echo Lake, April 15, 1995 (RH); 1 immature, east end of Echo Lake, May 9, 1998 (RH); 1 immature, flying along south shore of Echo Lake, May 20, 1999 (RH); 1 immature, flying east of Echo Lake, Dec. 1, 1997 (RH); 1 immature, flying south of the valley, about 20 km west of the area covered by M. Callin, June 6, 2000 (LR, PB, RH).

*ICELAND GULL. *Third record* -1 immature (light brown colour with no white rump, black beak, and pink legs), flying at east end of Echo Lake, Dec. 17, 1987 (CBC, RH).

HERRING GULL. *New status* - common spring and fall migrant, with immature birds sometimes remaining all summer. *Early spring record*- 1, Fort Qu'Appelle, April 1, 1988, and April 1, 1992 (RH). *Late winter record*-1, east end of Katepwa Lake, Dec. 11, 1999 (RH, RK).

THAYER'S GULL. *Status change* -Regular in small numbers in spring migration, rare in fall migration. *Early spring record*- 1, Fort Qu'Appelle, March 25, 2000 (RH). *Fall date*- east end of Echo Lake, Nov. 19, 1994 (RH).

CALIFORNIA GULL. *Early spring record*- 3, Fort Qu'Appelle, April 1, 1989 (RH).

RING-BILLED GULL. *Early spring record*- Fort Qu'Appelle, March 24, 2000 (RH).

#MEW GULL. *New species* -1, standing on ice near the east end of Echo Lake beside a Herring Gull, (less than half the size of the Herring Gull, legs brighter yellow than a Ring-billed Gull, when the wing was raised it showed a black tip with very prominent white patches near the apex, the black did not extend up along the fore-edge of the wing as clearly as in a Ring-billed Gull, dull-

coloured bill with no band), April 13, 1989, (RH); 8 (as in previous sighting, but bills all yellow, with no black markings, the small size of their heads were noted), on sandbar near southeast corner of Echo Lake, at about 100 m in bright sunlight, Aug 6, 1994 (RH); 1, flying at about 30 m, southeast corner of Echo Lake, Aug. 16, 1994 (RH).

BONAPARTE'S GULL. *Early spring record*- 8, Fort Qu'Appelle, April 19, 1985 (RH). *Late fall record*- 8, Fort Qu'Appelle, Nov. 28, 1987 (RH).

#BLACK-LEGGED KITTIWAKE. *New species* - 1, Heil Lake, southeast of Lemberg, Oct. 26, 1990 (photographed by D. Rowell, confirmed by RK) (B. Bordass, D. Rowell, J. McKen, LR, N. McKen, PB). This is the second record of this species for Saskatchewan.⁷

COMMON TERN. *Early spring record* -1, Fort Qu'Appelle, April 19, 1985 (RH).

#ARCTIC TERN. *New species* - Seen near the east end of Echo Lake on 2, May 3, 1988; 3, May 7, 1988; 2 adults and 1 immature, May 29, 1989; 1, May 14, 1990; 1, May 18, 1991; 1, May 13, 1992; 1, May 22, 1996 (RH). On all of these occasions the complete red beak was noticed. On one occasion the dirty white breast and short legs were noted. At one sighting, the nasal call was heard. Care must be taken in identifying terns with all red beaks in summer because some Common Terns lack the black tip on the beak that time of the year.

LEAST TERN. *Second record* -1, flying with Forster's Terns (smaller, no forks in the tail, but tail slightly notched, white forehead, black line through the eyes, black wing-tip, yellowish beak), near the dam at Fort Qu'Appelle, May 26, 1989 (RH).

CASPIAN TERN. *Biggest flock*- 8, flying low on cloudy day east of Balcarres, May 9, 1992 (RH).

BLACK TERN. *Late fall record*- 1, east of Pasqua Lake, Sept. 23, 2001 (RH).

MOURNING DOVE. *Early spring record*- 1, Fort Qu'Appelle, April 4, 1998 (RH).

BLACK-BILLED CUCKOO. *Late fall record*- 1, B-Say-Tah, Sept. 19, 1999 (RH).

EASTERN SCREECH OWL. *Additional records* -1 (gray phase), photographed in a shed, Moosomin, Jan. 1992 (D. Gillich); 1 (gray phase), Whitewood, Feb. 14, 1994 (JP); 1 (gray phase), struck by a car between Fort Qu'Appelle and Balcarres, March 8, 1994, Looked after for a week and then released (A. Gillich).

NORTHERN HAWK OWL. *Additional winter records*- 2, Round Lake, Dec., 1985 (D. Francis, CBC); 1, Fort Qu'Appelle, Dec. 9, 1990, (RH); 1, Fort Qu'Appelle, Dec. 15, 1990 until March 9, 1991 (LR, RH, CBC); 1, Fort Qu'Appelle, Dec. 20, 1995 (B. Luterbach); 1, Lebreton, Dec. 21, 1995 until Jan. 1, 1996 (RH, CBC); 1, area of Round and Crooked Lakes, Dec. 7, 1996; 1, Edgeley, Feb. 7 and 8, 1997, (PA).

GREAT GRAY OWL. *Recent records*- 1, Whitewood, Feb. 15, 1997 (BM, JP); 1, Broadview, Dec. 23, 2000 (CBC); 1, Whitewood, Dec. 31, 2000 (CBC); 1, Broadview, Jan. 2001 (D. Weidl).

LONG-EARED OWL. *2nd winter record*-1, in a spruce tree, south side of Mission Lake, Dec. 18, 1993 (D. Rowell, E. Cochrane, LR, CBC).

COMMON NIGHTHAWK. *Status change* - Seen uncommonly in migration in recent years. *Summer records* - Several seen and heard in late June and early July, 2001 near Tantallon and Fort Esperance (RH). *Nesting record*- One egg on flat rock on south facing prairie hillside, north of Fort Esperance, June 30, 2001 (RH).

RUBY-THROATED HUMMINGBIRD. *Early spring records*- 1, Fort Qu'Appelle, April 22, 2000 (+19 C.) (J. Derkatch); 1, Fort Qu'Appelle, May 2, 2000 (M. Isfan).

*#BLACK-CHINNED HUMMINGBIRD. *New species* -1, at a feeder near Whitewood, May 20, 1996 (BM). A photo of it was sent to RK. He said that it could be this species, so it is still unconfirmed.

BELTED KINGFISHER. *Early spring record*- 1, Wolseley, April 4, 1992 (RH). *Additional winter records*-1, Fort Qu'Appelle, near the dam (it lived in a culvert), Nov.26, 1988 until Dec.26,1988 (CBC) (LR), and (RH); 1, Crooked Lake, Dec.21, 1998 (CBC).

NORTHERN FLICKER. *Winter records*- Seen on Fort Qu'Appelle CBC 1991, 1999, 2000, and 2001; 1, Whitewood, Dec.23,1994 until March 1, 1995, (JP).

PILEATED WOODPECKER. *Additional summer records*- 1, Qu'Appelle Valley, north of Whitewood on June 27, 1993, July 18,1996 and Aug.8,1997 (JP); 1 heard, Fort Esperance, June 29, 2001 (RH).

LEWIS' WOODPECKER. *Recent record* - 1 (dull red face noted, all dark with no white as it flew away with undulating woodpecker flight), north edge of Fort Qu'Appelle, Dec. 16, 1995 (BB, CBC, JM and PB).

WESTERN KINGBIRD. *Late fall record*- 1, Fort Qu'Appelle, Sept. 6, 1991 (RH).

GREAT CRESTED FLYCATCHER. *Early spring record*- 1, B-Say-Tah, May 17, 2000 (RH).

EASTERN PHOEBE. *Early spring record*- 1, Camp McKay, Round Lake, April 13, 1991 (JP).

OLIVE-SIDED FLYCATCHER. *Early spring record*- 2, Fort Qu'Appelle, April 24, 1997 (RH).

HORNED LARK. *Status change* - Still common in migration, but becoming an uncommon summer resident in the fields. Where we used to notice a dozen Horned Larks at a stop on the breeding birds survey south of Cupar every June, there are now 2 or 3. This is probably due to the use of field sprays.

COMMON RAVEN. *Status change* - Now a year-round resident that is increasing annually. It has been regular here in winter since 1988, and in summer, since 1994. On November 19,1999, I saw a flock of 20 ravens north of Lipton flying southwestward at tree-top level. Were these additional ravens moving in from the north for the winter? On December 15, 2001, a total of 27 were seen near Fort Qu'Appelle (CBC). *Breeding record*-1 adult in an aspen feeding a young bird, south side of Round Lake, summer of 2001 (BM).

#MOUNTAIN CHICKADEE. *New species* -1, at a feeder at Fort San, Dec. 17-19 (CBC) (E. Rak); 1, at a feeder, B-Say-Tah, Nov. 1991 (B. Whiting); 1, at a feeder, B-Say-Tah, late November, 1993 (B. Whiting).

BOREAL CHICKADEE. *Largest flock*- 6 (in flock with 2 Golden-crowned Kinglets), Fort Qu'Appelle, Dec.11, 1986 (RH).

WHITE-BREASTED NUTHATCH. *First record of nest with eggs* -Apparently the first report of sighting White-breasted Nuthatch eggs in a nest in Saskatchewan (C. S. Houston, pers. comm. May 2002). One nest hole was found about 2 m up in a maple tree, in late April, 1998. The eggs were too deep in the heart of the tree to see them with a light and a mirror. Later young birds were heard in the nest (RH). On May 11, 1998, PB showed me where she had seen a White-breasted Nuthatch come out of a hole, about 5 m up in an ash tree in Fort Qu'Appelle. I saw what was probably the mother bird going in and out of the hole, so I climbed up with a ladder. The entrance was a knot hole. I shone a flashlight in, and saw the nest about

thirty cm below the entrance. The nest was lined with unidentified white furry seeds. In the nest there were 2 dull white eggs that had some spots and streaks at the larger end. The following day I showed the nest to PA. At this time 3 eggs could be seen.

RED-BREASTED NUTHATCH. *Change in winter status* - Now a regular, but uncommon winter resident among evergreens. Flocks of from 8 to 10 were seen at Fort Qu'Appelle, in December, 2001 (RH); 14 were seen on Dec. 15, 2001 (CBC).

BROWN CREEPER. *Additional winter records* - Before 1985, Manley Callin only reported 1 winter record for the area. There are now winter records for 1985, 1986, 1989, 1991, 1992, 1996, 1997, 1998, and 2001.

WINTER WREN. *Additional records* - 1, Among trees near south shore of Echo Lake, Nov. 7, 8, and 9, 1993 (RH and V. Lamontagne); 1, in same area as the 1993 bird, Nov. 20, 1999 (V. Lamontagne).

*# CAROLINA WREN. *New species* - 1 wren, at feeder in Fort Qu'Appelle, Nov. 25, 1997 (F. Pearpoint). It was larger than a House Wren, buffy underneath, with a pale line above the eye. She saw one at a time at the feeder, but so frequently that she thought that there may have been more than one bird. One came also to the feeder in December 1997 between Christmas and New Years Day.⁴ Carolina Wrens are noted for moving northward in the fall to colonize a new area.

SEDGE WREN. *First fall record* - 4, near Lebreton Marsh, Sept. 24, 1997 (RH).

NORTHERN MOCKINGBIRD. *Recent records* - 1, west of the dam at Fort Qu'Appelle, May 22, 1999; 1, west of Fort Qu'Appelle, March 24, 2001 (B. Hooper, RH); 1, in Qu'Appelle Valley, east of number 9 highway, July 13, 1995 (BM).

BROWN THRASHER. *Early spring record* - Whitewood, May 1, 1998 (BM).

HERMIT THRUSH. *Additional spring record* - 1 male heard singing, Whitewood, April 30, 1995 (JP).

MOUNTAIN BLUEBIRD. *First winter records* - 1 male, Fort San Road, Dec. 20, and 29, 1986 (CBC, RH); 1 female, along Fort San Road, Dec. 13, and 16, 1998 (RH, R. Luterbach).

TOWNSEND'S SOLITAIRE. *Additional winter records* in 1995, 1996, and 1998. 1, west of Fort Qu'Appelle, Dec. 20, 1998 (RH, CBC), moving through scrub with a flock of Bohemian Waxwings. Did they lately join company, or did they move in from the northwest together?

RUBY-CROWNED KINGLET. *Early spring record* - 1, Round Lake, April 13, 1991 (JP).

SPRAGUE'S PIPIT. *Early spring record* - 1 heard, Fort Qu'Appelle, April 20, 1991 (RH).

NORTHERN SHRIKE. *Late spring record* - 9, Round Lake, April 20, 1995 (JP).

#WHITE-EYED VIREO. *New species* - 1, northeast of Balgonie, May 28, 1992 (R. Long); seen again May 30, 1992, photographed and recorded (RK, R. Long, and R. Ramage). First confirmed record for Saskatchewan.

PHILADELPHIA VIREO. *Late summer records* - 1, Whitewood, Aug. 19, 1993 (JP); 1 adult male, west of Fort Qu'Appelle, July 30, 1998 (RH).

WARBLING VIREO. *Early spring record* - 1 heard, Fort Qu'Appelle, May 8, 1994 (RH).

#GOLDEN-WINGED WARBLER. *New species* - 1 male (the golden crown and shoulders and black throat were noticed), south side of Mission Lake, May 1991 (J. Connor).

NASHVILLE WARBLER. *First summer records*-2 banded, Qu'Appelle Valley and number 9 highway, July 5, 1994, and July 27, 1994 (JP).

YELLOW-RUMPED WARBLER. *Late fall record*- 1, Fort Qu'Appelle, Nov. 9, 1996 (RK).

BLACKBURNIAN WARBLER. *Recent record* -1, Qu'Appelle Valley and number 9 highway, May 25, 1992 (JP).

OVENBIRD. *Early spring record*-2, Indian Head, May 10, 1992 (JP).

#HOODED WARBLER. *New species* -1 female banded, Qu'Appelle Valley north of Whitewood, July 3, 1995 (JP).⁶ Fourth record for Saskatchewan.⁷

BOBOLINK. *Early spring records*- 1 each day, Fort Qu'Appelle, May 1, 8, and 9, 1998 (RH).

WESTERN MEADOWLARK. *Early spring record*-1, Wapella, March 18, 1997 (JP).

YELLOW-HEADED BLACKBIRD. *Late fall record* -1 male, Fort Qu'Appelle, Oct. 21, 1997 (RH).

#BULLOCK'S ORIOLE. *New species* -1 immature male, at a bird feeder at Fort Qu'Appelle, where it had been seen for about 5 days, Oct.28, 1988 (A. Laing, E. Cockwill, K. Lindgren, LR, and RH).

RUSTY BLACKBIRD. *Early spring record*- 10, Crooked Lake, April 8, 1990 (JP). *Late spring record*-43, Fort Qu'Appelle, May 1, 1997 (RH) (identified by listening to the song of the males).

BREWER'S BLACKBIRD. *Early spring record*- 1, Whitewood, April 13, 1993 (JP). There are a number of reports of this species as winter records. These need to be accepted with caution, as Rusty Blackbirds lose most of their rusty colours by Christmas time, and

can easily be mistaken for Brewer's Blackbirds. Male Brewer's have slightly heavier beaks, and the females are lighter brown with dark eyes.

BROWN-HEADED COWBIRD. *Winter records*-3, Whitewood, Dec. 10, 1994 (JP); 2, Whitewood, Dec. 22, 1996 (JP). It is expected that December cowbirds would show some signs of immature plumage, and would have shorter beaks than other blackbirds. Adult cowbirds normally leave for the south in early July. The immatures that are raised by other birds have to find their way south later. Any reports of wintering cowbirds should be viewed very cautiously, because their foster parents are species that do not overwinter here. Our usual overwintering blackbirds are Rusty Blackbirds, and Red-winged Blackbirds (which sometimes stay in small numbers among cattle), and the very casual occurrence of the Common Grackle around bird feeders.

WESTERN TANAGER. *Recent records* -1 male and 1 female fed (along with Northern Orioles) on orange slices nailed to a tree at Fort Qu'Appelle, May 24 and 25, 1997 (LR, PB, and RH)¹ ; 1, northeast of Whitewood, June 18, 1995 (BM).

SCARLET TANAGER. *Recent record* -1 male flew by at close range, Echo Creek Valley, southwest of Fort Qu'Appelle, June 14, 1992 (RH).

NORTHERN CARDINAL. *Recent records* - On Nov. 30, 1992, B. and D. Sipple of Esterhazy reported that cardinals were seen at their feeder occasionally in the last few previous years; 1 female at a feeder in Fort Qu'Appelle, Dec. 1, 1998, until Feb. 21, 1999 (A. Isfan, PB, RH, RK, CBC).

ROSE-BREASTED GROSBEAK. *Early spring records*-1, at feeder, Whitewood, May 10, 1991 (JP); 2, Indian Head, May 10, 1992 (JP).

BLACK-HEADED GROSBEAK. *Recent records* -1 female, south of Lebret Marsh, May 17, 1986 (LR, RH); 1 female, north shore of Katepwa Lake, May 17, 1986 (LR, and RH); 1, Fort Qu'Appelle, May 29, 1997 (ML).

HOUSE FINCH. *Change in winter status* - Now a fairly common permanent resident in some of the towns.

PINE GROSBEAK. *Summer straggler*- 1, Whitewood, Aug. 12, 1992 (JP).

PINE SISKIN. *Winter status change* - Since 1982 a few Pine Siskins have been present nearly every winter. Sometimes they are locally common.

AMERICAN GOLDFINCH. *Early spring record* (or did it overwinter?)-1 immature male, at feeder in Fort Qu'Appelle, April 4, 1994, (B. Bordass, PB).

RED CROSSBILL. *Spring records* - 2, at feeder in Fort Qu'Appelle, early April until June 1, 1991 (B. Bordass, PB).

WHITE-WINGED CROSSBILL. *Late spring record* -1 at feeder, Whitewood, April 21, 1995 (JP).

SPOTTED TOWHEE. *Late winter record*- 1, at feeder southwest of Fort Qu'Appelle, Nov. 22 until Dec. 26, 1993 (RH, CBC). Both the Eastern Towhee and the Spotted Towhee are now regular summer residents at Fort Qu'Appelle. Trevor Herriot believes he sees some evidence of interbreeding in the Katepwa area (Trevor Herriot, pers. comm. May 2002).

LARK BUNTING. *Unusually large flock* - 30, Round Lake, May 28, 1992 (JP).

GRASSHOPPER SPARROW. *Early spring record*-1 seen and heard, on prairie north of Lebret Marsh, May 10, 1997 (PA, RH).

BAIRD'S SPARROW. *Early spring record*- 3 singing males, along dried up marsh, west of Fort Qu'Appelle, May 9, 1998 (RH).

LARK SPARROW. *First fall date recorded* -3, south of Fort Qu'Appelle, Aug.11, 1987 (RH).

DARK-EYED JUNCO. *Early spring record*-2, Round Lake, March 12, 1995 (JP).

TREE SPARROW. *Late spring record* -1, Fort Qu'Appelle, May 19, 1990 (LR).

#FIELD SPARROW. *New species* -1, east of Katepwa Bridge, April 28, 1997 (PA).

HARRIS' SPARROW. *Early spring record*- 1, Fort Qu'Appelle, April 16, 2000 (RH). *Winter records* in 1985, 1987, 1991, 1992, 1993, 1994, and 1997.

WHITE-CROWNED SPARROW. *Early spring record*-1 singing, Fort Qu'Appelle, April 25, 1991 (RH). *Winter records*-1, Broadview, Dec. 1986 (CBC); 1 immature, Fort Qu'Appelle, Dec. 30, 1998 until Jan.3, 1999 (J. Armstrong, RH, CBC).

GOLDEN-CROWNED SPARROW. *Recent record* -1, Fort Qu'Appelle, May 19, 1990 (LR).

WHITE-THROATED SPARROW. *Additional winter records*-5, Indian Head, Dec. 27, 1987 (CBC); 1, Broadview, Dec. 1990 (CBC); 1, Fort Qu'Appelle, Dec.31, 1998 (J. Armstrong, CBC).

LINCOLN'S SPARROW. *Late fall record*- 2, Round Lake, Nov.2, 1996 (JP). *Winter record*- 1, Whitewood, Dec. 11 until Dec. 18, 1992 (JP).

SONG SPARROW. *Additional winter records*-Fort San, 1988; Katepwa Lake, 1993; and Crooked Lake, 1999.

LAPLAND LONGSPUR. *Additional winter records*-20, Whitewood, Feb. 22, 1994 (JP);

15, Whitewood, Dec. 22, 1996, (CBC); 45, Whitewood, Jan. 5, 1997 (BM, JP); 15, Fort Qu'Appelle, Dec. 19, 1997 (RH, CBC).

Acknowledgements

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SPEEDY MIGRATION: SASKATCHEWAN'S FIRST OSPREY SATELLITE TRANSMITTER

C. STUART HOUSTON, 863 University Drive, Saskatoon, SK S7N 0J8 and
MARK MARTELL, The Raptor Center, University of Minnesota, 1920 Fitch Ave.,
St. Paul, MN 55108

On July 2, 2001, a 35 g solar-assisted satellite transmitter was applied to the back of a 1900 g adult female Osprey, at her nest pole beside the South Saskatchewan River east of Rosthern, SK. The transmitter provided multiple daily latitude and longitude readings through the Argos system (see www.argosinc.com for more details). The data were analyzed and mapped using ArcView (ESRI Inc. Redland, CA) GIS, and distances were calculated using Grinwich.

The Osprey fed her young on or near her nest until August 10. We presume this was

the date for the second youngster to fledge, for she then began to cruise up and down the river, most commonly in a south-westerly direction from her nest pole. From August 30 through September 6, she perched along the river only 5 km north of Saskatoon, 57 km from her nest platform.

Her first migration flight of 283 km on September 7 took her to near Avonlea, Saskatchewan. On the second day, after a flight of 640 km, she reached Rapid Creek in the Black Hills west of Rapid City, South Dakota. The third and fourth days' flights

Map 1. The Osprey's route from Rosthern SK to Costa Rica, showing the date at each location. Circles: southbound locations; triangles: northbound locations.

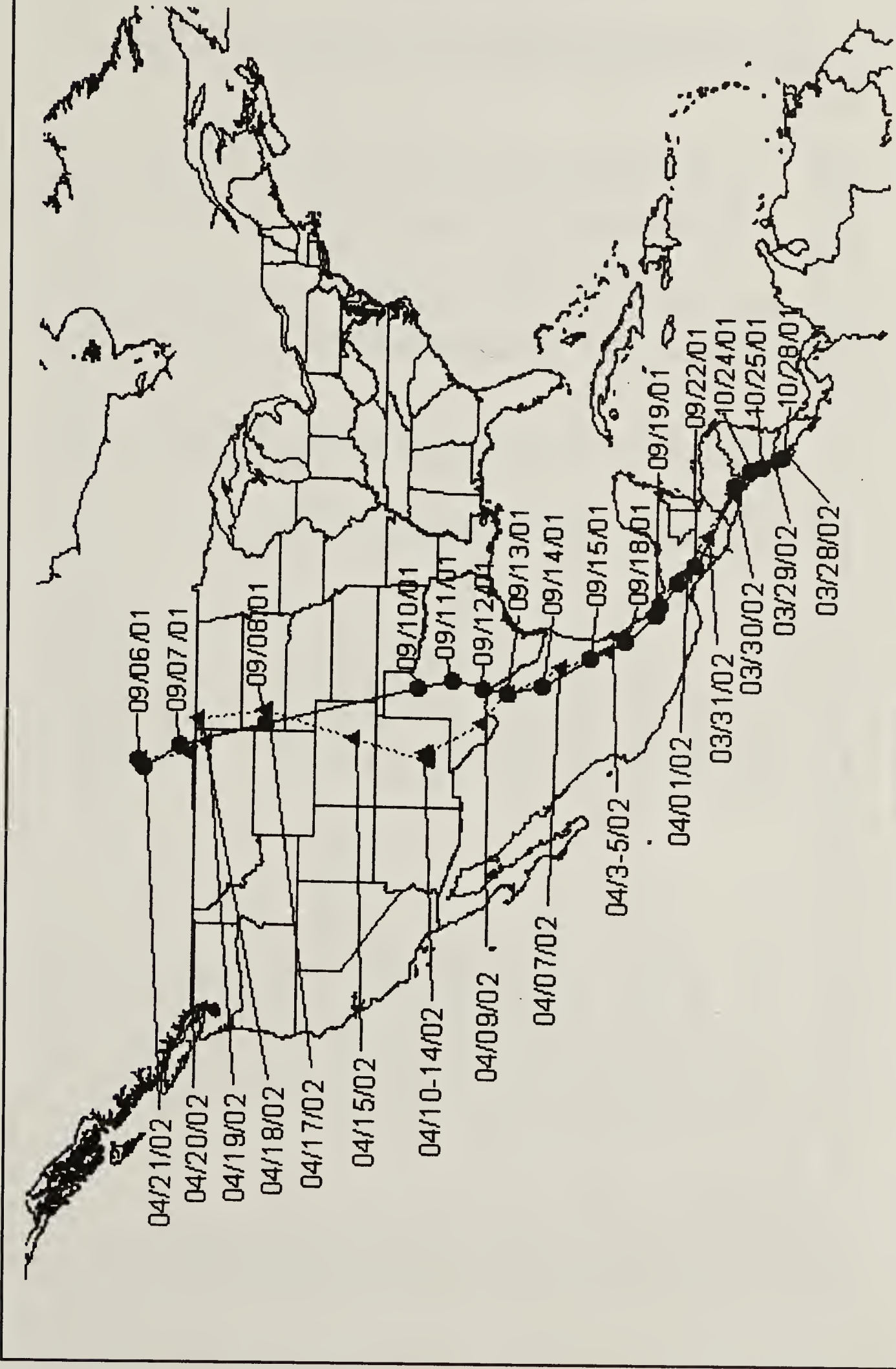


Table 1 – Osprey travels 2001-2002 Saskatchewan to Costa Rica and back

2001 Date	Locality	Water Body	State	Latitude deg min	Longitude deg min	Distance (km)
Southward Bound						
Jul 2-Aug 11	13 km e Rosthern	S Sask R	Sask	52 40	106 7	ArcView
Aug 12-29	S Sask R	S Sask R	Sask	52 var	106 var	Grinwich
Aug 30-Sep 6	River n Saskatoon	S Sask R	Sask	52 13	106 34	64
Sep 7	20 km s Avonlea		Sask	49 50	105 9	257
Sep 8	30 km w Rapid City	Rapid Creek	SD	44 11	103 32	609
Sep 9 & 10	Matador	Middle Pease R	TX	34 4	101 0 *	1107
Sep 11	San Angelo	Concho River	TX	31 45	100 36	255
Sep 12	Comstock	Devils River	TX	29 56	101 6	215
Sep 13	n Nueva Rosita	Rio la Leona	Coah	28 12	101 19	199
Sep 14	La Paloma	near unnamed stream	Coah	26 0	100 47	249
Sep 15 & 16	40 km w Ebano	near unnamed stream	SLP	22 46	98 55 *	392
Sep 17	40 km w Poza Rica	Rio Pantepec	VC	20 31	97 52	267
Sep 18	65 km s Veracruz	Rio la Hacienda	VC	18 32	96 10	274
Sep 19	30 km sw San Andres Tuxtla	Rio San Juan	VC	18 17	95 27	79
Sep 20	90 km nw Tuxtla Gutierrez	Malpaso Reservoir	VC	17 10	93 58	194
Sep 22	85 km sse Tuxtla Gutierrez	Rio Hustate	Chiap	16 1	92 47	175
Sep 23-Oct 22	27 day stop	La Angostura Reserv	Chiap			
Oct 23	40 km n San Lorenzo		Hond	13 26	87 34	619
Oct 24	70 km e Leon		Nicar	12 25	86 29	159
Oct 25	50 km s Managua		Nicar	11 44	86 17	80
Oct 26-Mar28	35 km s Liberia	Tempisque River	Costa	10 22	85 34	169
19 days major travel southward						5363
Shortest direct route between end points 5049 km						282
mean						287

Northward Bound

Mar 28	35 km s Liberia	Tempisque River	Costa	10	21	85	40		
Mar 29	San Juan del Sur	Pacific Ocean shore	Nicar	11	11	85	53	99	99
Mar 30	30 km n St. Miguel	Grande San Migeul R	ElSal	13	42	88	4	362	367
Mar 31	20 km e Neba	Chixoy Negro R	Guat	15	19	90	54	347	353
Apr 1	20 km w Tuxtla Gutierrez		Chiap	16	43	93	20	297	304
Apr 3	12 km w Alamo	Rio Pantepec	Mex	20	56	97	48 *	643	665
Apr 4	12 km nnw Tres Palmas		VC	21	44	98	25	106	110
Apr 5	12 km n Tres Palmas		VC					5	5
Apr 7	12 km n Linares	Rio Conchos	Mex	24	58	99	30 *	370	376
Apr 8	40 km n Nueva Rosita	near Rio la Leona	Mex	28	19	101	16	397	411
Apr 9	Marathon	Maravillas Creek	TX	30	7	103	18	265	282
Apr 10	5 km w Hondo	near Rio Hondo	NM	33	30	105	23	402	423
Apr 11	40 km w Hondo		NM	33	28	105	45	35	34
Apr 12	40 km w Hondo		NM	33	26	105	44	2	2
Apr 13	60 km ne Carrizosa		NM	33	51	105	21	63	58
Apr 14	10 km se Carrizosa		NM	33	33	105	49	59	54
Apr 15	30 km n Pueblo	Chico Creek	CO	38	30	104	28	592	564
Apr 16	40 km ne Rapid City	Cheyenne River	SD	44	17	102	46	686	658
Apr 17	55 km ne Rapid City	Cheyenne River	SD	44	22	102	41	12	11
Apr 18	Crosby		ND	48	49	103	18	482	498
Apr 19	25 km w Medicine Lake	Smoke-Big Muddy Cr	MT	48	22	104	50	138	123
Apr 20	10 km n Willow Bunch	Willow Bunch Lake	SK	49	31	105	38	126	140
Apr 21	e of Rosthern	S Sask R	SK	52	41	106	9	343	354
								5831	5891
								265	268
								343	347

22 days travel northward mean
17 days major travel northward mean

Notes An asterisk before the distance column indicates a "two-day" distance. Others are "one-day".
All localities in column B can be found in the Rand McNally International Atlas, 1969
Names of small rivers are from Guia Rojo por las Carreteras de Mexico, 1998
If column C blank, the osprey satellite reading was evidently distant from water

took her 1145 km to Matador, Texas, by September 10, a surprising distance of 1785 km in three days! Shorter trips of 260 km and 208 km, respectively, took her to San Angelo on September 11, and then Comstock, Texas on September 12. Many of the data points were near rivers or reservoirs where presumably she could catch fish.

Flights of 194, 252, 405 (in 2 days), 273, 283, 81, 200, and 180 km took her to the large La Angostura Reservoir southeast of Tuxtla Gutierrez, Chiapas, Mexico. She stayed there for one month. We thought she must be wintering there, since the previous longest stop during fall migration was a 20 day layover by an east coast male Osprey in Cuba who wintered in Brazil.² From Chiapas, the Saskatchewan Osprey flew 588 km to Honduras, 162 and 80 km in Nicaragua, and after a 170 km flight arrived on 26 October at the Tempisque River, at the base of the Nicoya Peninsula in Costa Rica. She had spent 19 days in major travel, with an average distance of 287 km per day (282 km by ArcView), but the total elapsed time from near Saskatoon to Costa Rica was 51 days (Table 1). This is similar to the speed of Ospreys tracked from Oregon which by ArcView calculations averaged 296 km/day, and is faster than birds from Minnesota (230 km/day) or New York (214 km/day).²

Her route had been a remarkably straight line, slightly east of south, so direct that the shortest distance between the nest pole and her wintering area was 5049 km, only 412 km less than the sum of the individual flights. She remained fishing on the Tempisque River for five months. Her last day there was March 28.

Her first day's northward flight took her 99 km to the Pacific Ocean shore in Nicaragua. A flight of 367 km to El Salvador and another 353 km to Guatemala, was followed by 304 km to Chiapas. She spent the first eight days of April traveling the length of eastern Mexico, then on to Texas,

New Mexico (where she stayed for five days), Colorado, South Dakota (2 days), extreme northwest North Dakota, and northeast Montana. She arrived at the northwest corner of Willow Bunch Lake in Saskatchewan on 20 April, and at her platform on the river 15 km east of Rosthern on April 21, after a final flight of 354 km. She averaged 347 km (343 km by ArcView) in 17 days of major travel on the way north, not counting seven days of presumed rest and feeding, for an elapsed time of 24 days. Southward and northward routes were similar, apart from a westward deviation into New Mexico and Colorado on the way north.

Previous band recoveries of Ospreys from Saskatchewan included three from the Pacific Ocean coast near the equator in Colombia and Ecuador.¹ From this small sample CSH had hypothesized that Saskatchewan birds "leap-frogged" over the Idaho Ospreys whose bands had been recovered in Central America.

Ospreys tracked from the Columbia River in Oregon wintered for the most part in Mexico and as far south as Honduras. Ospreys tracked from Minnesota wintered from Mexico south to Peru including Nicaragua and Panama.² Thus it seems probable that Saskatchewan Ospreys share their wintering areas, at least as far north as Costa Rica, with other birds that breed from the Great Lakes westward to the Pacific Ocean.

The satellite radio transmitter provided, for the first time, an accurate record of the distance traveled per day, and the number of rest and feeding stops en route. If the bird lives another year, and the transmitter keeps functioning, we plan to follow this bird's movements for a second year. Previous multi-year studies of 16 Ospreys from the United States, followed for two to four years, indicate that individuals tend to follow a similar route each year and to winter in the same area.

A note on distance measurement The Greenwich program is based on an equatorial radius of 6378.5 km and a polar radius of 6356.9 km. Since the earth is not a perfect sphere (such an assumption would underestimate the length of the equator by 68 km), Greenwich calculations make a correction for the ellipsoid shape of the earth.

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Nature Saskatchewan members Martin Gerard, David Miller, Brent Terry, Marten Stoffel, and Frank Scott helped with the platform construction, photography and banding. Marc Bechard traveled from Boise, Idaho, at his own expense, to provide expertise in attaching the backpack radio transmitter. Saskatchewan Power Corporation provided the nest pole and

matched, dollar for dollar, the \$3000 raised by Nature Saskatchewan for this \$6000+ project. Without this support we would not have learned the Osprey's remarkable speed in its first week of southward travel. We thank Matthew J. Solensky and Ananda Wiegand for help with data management.

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EARLY SASKATOON CITY BIRD BANDERS*

C. STUART HOUSTON, 863 University Drive, Saskatoon, SK S7N 0J8

Stuart Thompson

A news story, titled "Stuart Thompson, 17, only bird-bander, wants to be game warden and live out-of-doors," appeared in the 27 March 1935 issue of the *Saskatoon Star-Phoenix*. In the article, Ted Schrader, editor of *The Park Bench*, the City Park Collegiate paper, told how Stuart wrote for and received a bird banding permit from the Department of the Interior, Ottawa. Unfortunately, there is no record of his banding activities; probably he banded few, if any, birds. Perhaps his aim was to band Great Horned Owls, for he had a band of that size which he passed on to his more junior friend, Farley Mowat, duly acknowledged in Mowat's 1936 banding schedule for a single fledgling owl.

Farley McGill Mowat, permit # 00294

In his autobiography, *Born Naked*, Farley tells of applying for a banding permit on May 14, 1935 – two days after his 14th birthday.⁶ So that he could obtain a permit, his great-uncle, Frank L. Farley of Camrose, Alberta, wrote a letter of support, as did a friend. Mowat admits to writing his age somewhat illegibly in his band permit application, since he was under-age. The front sheet of the file at Patuxent Research Refuge, Laurel, Maryland, is titled "W. Mowat." His 1935 banding schedules, in Mowat's own handwriting, list him as William McGill Mowat. Someone, presumably in the banding office in Ottawa, later crossed out William, and wrote in "Farley." His file in the Ottawa banding office, then in the

National Parks branch, forty years later, still had this note appended:

“This [banding] co-operator has been the source of considerable confusion in this Department because he seldom uses the same name twice. Here is a list of the names he uses.

W.F. and W. Farley Mowat

William Mowat

Billy M. Mowat

Farley Mowat

William Farley Mowat

Farley McGill Mowat

William McGill Mowat.”

“And sometimes he does not sign his name at all.”⁶

Farley’s banding schedules were legible, but he never did give his residence address; for all three years he gave his address as “Saskatoon Public Library,” where his father was chief librarian.

In the summer of 1935, as he was about to enter grade 9, Farley banded 45 nestlings or fledglings of eight species, beginning with one American Crow on 23 June, followed by another on 1 July and three on 15 July. He also banded two adult crows. On 27 June he banded seven nestling Yellow-shafted Flickers at “Dead Tree Bluff,” followed by seven more at the Country Club on 28 June and two on 30 June. Also at the Country Club he banded four Long-eared Owls on 30 June, two sets of four American Kestrels on 12 and 14 July, and one Tree Swallow, four Eastern Kingbirds and five House Wrens, plus two adult wrens. A fledgling robin was caught near his home and another in the City Park area.

One of the kestrels was shot at Flatonia, Texas, about 5 February 1936, and it was no doubt a thrill for a Grade 9 student to receive the report of the recovery in the mail. Not only that, but this first recovery of Mowat’s quickly entered the scientific literature of ornithology. In 1939, Frederick C. Lincoln chose this record as one of the three most important “American Sparrow Hawk”

recoveries in his landmark book, *The Migration of North American Birds*.³ Full details of the recovery were also reported by Cooke in *Bird-Banding*.¹

As his autobiography reports, “During the final months of 1935 and early 1936, I was the most assiduous young naturalist Saskatoon had even [sic] known or, I suspect, is ever likely to know. ... I made thirty-four bird hikes covering more than three hundred miles.” In his first winter of banding, Farley caught only one Bohemian Waxwing on 7 December 1935 and three Black-capped Chickadees in January 1936. On 15 June he banded a young Great Horned Owl. In the fall of 1936, he set up “a variety of wire-mesh traps” in his backyard.⁶ Here he caught and banded 51 Slate-colored Juncos between 21 September and 9 November. There was also a sampling of migrant sparrows: 21 White-throated, 11 White-crowned, 7 Lincoln’s (the first on 2 September), 6 Harris’s, 4 American Tree, and one Fox. His memory exaggerated the numbers, for he did not band “as many as a hundred ... sparrows a week” in October 1936.⁶

By the spring of 1937, Farley had learned to identify Gambel’s subspecies of the White-crowned Sparrow, and banded 12 between 1 and 11 May. He banded six American Tree Sparrows between 25 March and 19 April, 63 juncos between 19 and 29 April, and 16 White-throats between 4 and 24 May. After his family left Saskatoon in June 1937, Farley continued banding in Ontario.

After his discharge from the Army, Farley reactivated his banding permit. In 1946, he banded only 34 nestling Double-crested Cormorants, 6 Common Terns and 5 Herring Gulls in Ontario, and on a trip to Saskatchewan to collect birds for the Royal Ontario Museum, he banded one adult Common Loon at Montreal Lake on 6 June and four nestling flickers on 7 July. On 6 November 1950, he returned all his unused

Arnold McPherson's Saskatoon banding

	1946	1947	1948	1949	1950	1951	1952	Total	# recoveries	% recov
Horned Grebe		2	2					4		
Mallard		37	40	27				104	24	23.1%
N. Pintail		21						21	4	19.0%
Blue-winged Teal		5	14					19	1	5.3%
Am. Wigeon		6	7	5				18	2	11.1%
Turkey Vulture						1		1		
Am. Coot		1						1		
Killdeer				4				4		
Black Tern				1				1		
Burrowing Owl						3		3		
Eastern Kingbird				3				3		
Black-billed Magpie				4				4		
House Wren			7	20	4	1	5	37		
Veery				3	1			4		
Swainson's Thrush		1		1	5			7		
Hermit Thrush			1	2	2			5		
Am. Robin		13	19	78	39	24	26	199	12	6.0%
Gray Catbird		1	1	4		1		7		
Brown Thrasher		5		3				8		
Orange-crowned Warbler		1	1		1			3		
Yellow Warbler					2	2		4		
Yellow-rumped Warbler			3	3	1	1		8		
Palm Warbler				1				1		
Ovenbird					1			1		
N. Waterthrush				1		1		2		
Am. Tree Sparrow			4		11			15		
Chipping Sparrow		2		2	5	1	6	16		
Clay-colored Sparrow		10		1	3			14		
Vesper Sparrow				1	1			2		
Fox Sparrow				1				1		
Song Sparrow		1	1	2	6			10		
Lincoln's Sparrow		2	3	15	18		1	39		
White-throated Sparrow	5	101	14	67	38	28	9	262		
White-crowned Sparrow	1	5	6	3	18	2	1	36		
Harris' Sparrow	1	12	2	8	9	2		34		
Dark-eyed Junco	13	78	135	32	93	21	1	373	1	0.3%
Common Grackle		7			2	4		13		
Baltimore Oriole				1				1		
Pine Siskin				3				3		
TOTAL	20	311	260	296	260	92	49	1288	44	3.4%

bands (of sizes 1, 1A, 2, 3, 4, 5, 6, 7, and 8) to the banding office in Ottawa.

Arnold McPherson, 1899-1968, permit # 00477

Arnold McPherson was born in Kemnay, Aberdeenshire, Scotland on 26 January 1899. He emigrated to Canada in 1931. A baker by trade, he was seconded from Canadian Bakeries in Saskatoon to their plant in Yorkton in 1945. In spite of his short stay there, his keen powers of observation were evident in the important warbler observations he contributed to *Birds of the Yorkton District, Saskatchewan*.²

Between 1946 and 1952, McPherson banded 1288 individual birds of 39 species (Table1), most in traps in his yard in Saskatoon, but ducks, grebes and one coot at Hudson Bay Slough near the Saskatoon airport. Slate-colored Junco (373), White-throated Sparrow (262) American Robin (199) and Mallard (104) led the list. He banded three of a brood of seven Burrowing Owls, north of Saskatoon, on 18 July 1951. From this banding, the computer lists 33 recoveries and 11 returns. The latter were American Robins that he trapped in subsequent years: ten at one year and one at three years. Other robins were found dead in

Saskatoon, one the same year, one at 1 year, four at 2 years and two at 3 years after banding. Three American Robins were recovered in Texas (two of them shot!), and one in Virginia. A Slate-colored Junco was found dead at Okla, Saskatchewan the following spring. Two Northern Pintails and eight Mallards were shot in or near Saskatoon. Five Mallards where shot in Arkansas and one each in California, Colorado, Idaho, Louisiana, Minnesota, Mississippi, North Dakota, Nebraska, Oklahoma, Texas, and Wisconsin. Northern Pintails reached Sinaloa, Mexico and Nome, Alaska. Wigeons were shot in Nevada and North Dakota, and a Blue-winged Teal in Minnesota.

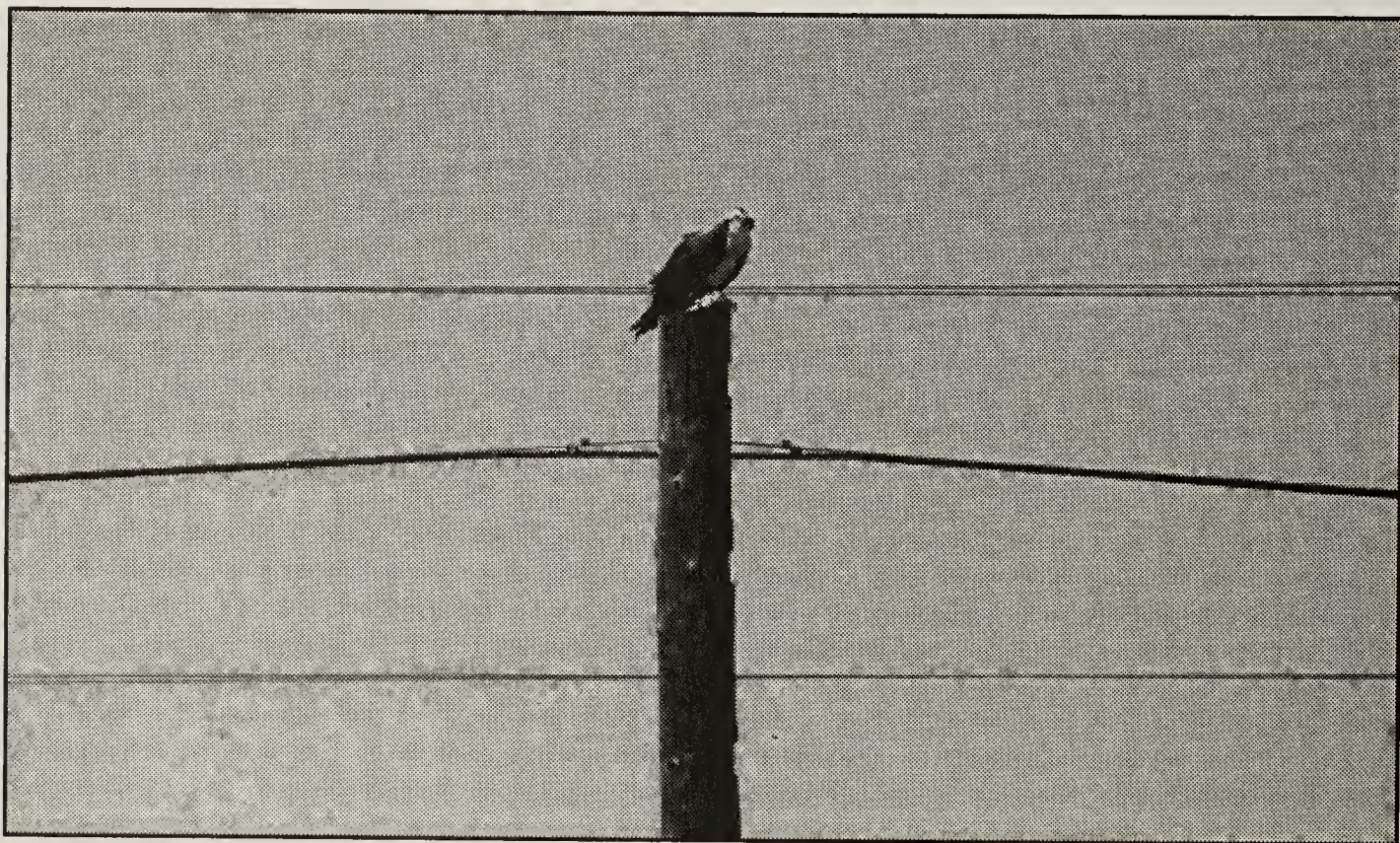
McPherson was a quiet, almost reclusive, Scot who kept meticulous records. He contributed two articles to the *Blue Jay* and in 1949, he was elected to a three-year term as a Director of the Saskatchewan Natural History Society.^{4,5} In 1952 he moved to Duncan on Vancouver Island and he died there on 29 May 1968. He is buried in Mountain View Cemetery, North Cowichan, B.C.

* Number 20 in a series of biographies of Saskatchewan bird banders

Acknowledgements

I wish to thank Cliff Everson for the newspaper clipping about Stuart Thompson, and the Saskatchewan Genealogical Society and the Family History Room, Saskatoon, for assistance in accessing McPherson's death certificate.

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Osprey holding a silvery fish, on top of a cedar utility pole on Warman Avenue in Saskatoon, Thursday, April 25, 2002.

Dennis & Jean Fisher

ERRATA

The photograph of a Roundleaf Monkey-flower on page 83 of the June 2002 issue was taken by Elizabeth Reimer, not Eric Reimer as credited.

NEW ROUNDLEAF MONKEY- FLOWER (*MIMULUS GLABRATUS*) OCCURRENCES IN MANITOBA

CARY HAMEL, KEN DE SMET and ELIZABETH REIMER,
Manitoba Conservation, Box 24, 200 Saulteaux Crescent, Winnipeg, MB R3J 3W3

Introduction

Roundleaf Monkey-flower (*Mimulus glabratus*) is a nationally rare plant found in groundwater seepage areas.⁴ In North America, north of Mexico, the species ranges from southeastern Alberta and Montana to southern Quebec, and southeast through Michigan and Illinois to Texas and California.⁴ Prior to surveys conducted in 2001, the species was known from eight locations in the Prairie Provinces: Sounding Lake in southeastern Alberta (Ksenija Vujnovic, Alberta Natural Heritage Information Centre, pers. comm.), four

occurrences in the Qu'Appelle River Valley in southeastern Saskatchewan (Jeff Keith, Saskatchewan Conservation Data Centre, pers. comm.), and three records along the Assiniboine River in southwestern Manitoba.

NatureServe considers Roundleaf Monkey-flower to be possibly extirpated from Ontario, and critically imperiled in all other Canadian provinces in which it occurs (Quebec, Manitoba, Saskatchewan and Alberta).⁴ Nevertheless, the species is considered globally secure. The species is



Figure 1. Roundleaf Monkey-flower, Spruce Woods Provincial Park.

Eric Reimer

not currently listed under any province's endangered species act and has yet to be considered by the Committee on the Status of Endangered Wildlife in Canada.

Species Description

Roundleaf Monkey-flower, a member of the figwort family, is a small, low, branching and mat-forming perennial wetland plant (Fig. 1).³ The weak, reddish stems are smooth and support nodal roots. The leaves are opposite, generally round, 0.8-3.0 cm wide, and pubescent when young, but smooth at maturity. The small (0.9-1.5 cm long), bright yellow flowers occur in the axils of the leaves. Flowering occurs from mid-July to mid-August. There are four varieties recognized, but only var. *jamesii* is present in the Prairie Provinces.²

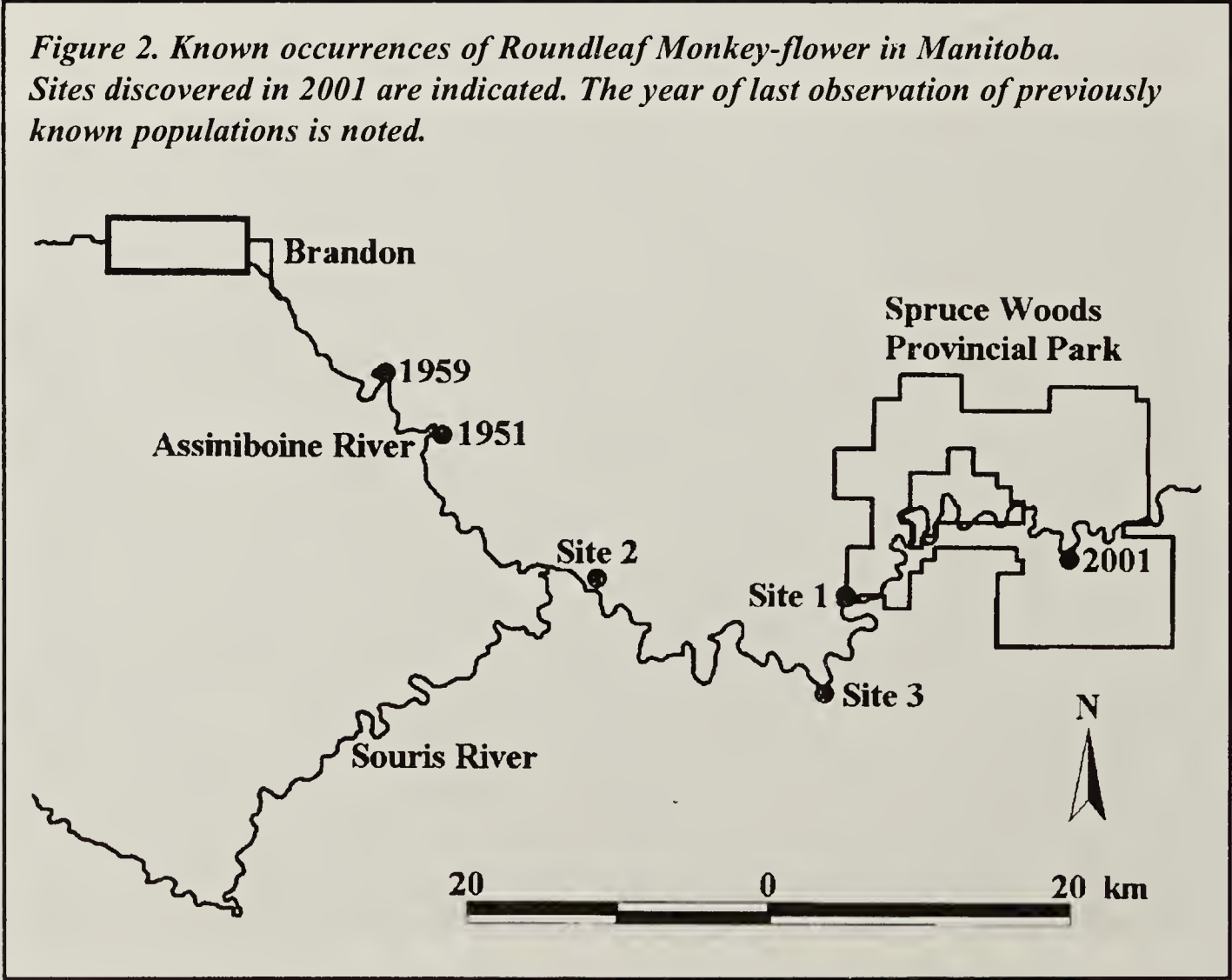
Methods

All known Roundleaf Monkey-flower populations in Manitoba occur in cold spring complexes adjacent to the Assiniboine River where it passes through sand deposits.

Groundwater seepage in these areas, and the subsequent flow of water towards the river, result in bank and sandhill erosion. As sand falls down unvegetated banks and is washed away, concave 'bowls' containing springs are formed. Prior to field work, aerial photographs, topographic maps and a toponymic database were used to identify major spring complexes in sandy areas of southwestern Manitoba. These large formations, as well as numerous smaller springs encountered incidentally, were accessed by road, on foot and by canoe. Twenty-seven springs adjacent to the Assiniboine River between Brandon and the eastern edge of Spruce Woods Provincial Park were surveyed, as were four spring complexes adjacent to the Souris, Boyne and Pembina Rivers. Surveys took place July 17 to August 19, 2001.

Results

Of the three previously-known Roundleaf Monkey-flower records, one was confirmed as extant. This population, located in eastern



Spruce Woods Provincial Park, was first recorded in 1943 and last observed in 1993. Springs in the vicinity of Brandon were searched, without success, in an attempt to relocate two records last observed in 1951 and 1959, respectively. New populations of Roundleaf Monkey-flower were discovered at three sites, all within spring complexes associated with sandy bowl formations adjacent to the Assiniboine River (Fig. 2).

Site 1

The largest population of Roundleaf Monkey-flower surveyed in 2001 was in a large sandy bowl formation 500 m north of the Assiniboine River in the southwestern corner of Spruce Woods Provincial Park, adjacent to a well-traveled hiking trail (Fig. 3). Most of this population was concentrated in a water moss (*Calliergon* sp.)-dominated apron around a beaver pond at the head of the spring. Floating mats also existed adjacent to beaver dams and at the head of smaller, secondary springs in the immediate vicinity.

A second bowl formation, containing a smaller spring complex, occurs 150 m to the southeast. Roundleaf Monkey-flower was observed here, as well, growing in a non-treed area immediately downstream from a stand of Black Spruce (*Picea mariana*) at the head of the spring. Relatively few individuals were found; scattered mats were observed along the edges of streamlets overtopped by Spotted Joe-Pye Weed (*Eupatorium maculatum* var. *maculatum*) and Field Horsetail (*Equisetum arvense*). The area immediately surrounding Site 1 is dominated by mixed grass prairie in a largely natural state.

Site 2

The Roundleaf Monkey-flower population at this site was associated with a large spring complex extending back 1000 m from the sandy north bank of the Assiniboine River, immediately east of its confluence with the Souris River. Beaver dams near the headwaters and at several

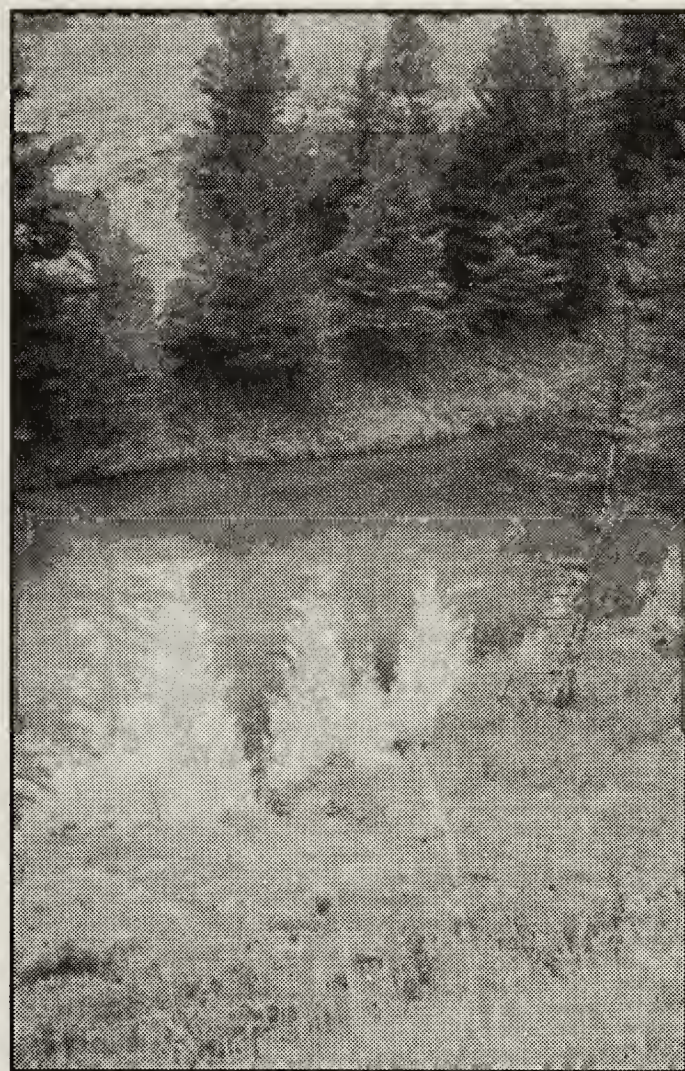


Figure 3. Springs within a sandy bowl formation, Spruce Woods Provincial Park. Roundleaf Monkey-flower is common in the grassy apron surrounding the spring-fed pond.

Cary Hamel

points downstream have formed a series of step-like pools. Thousands of Roundleaf Monkey-flower stems were observed in the wetlands that fringe these pools. Spotted Joe-Pye Weed, Spotted Jewel-weed (*Impatiens capensis*), Pennsylvania Bitter-cress (*Cardamine pensylvanica*), sedges (*Carex* spp.), and willows (*Salix* spp.) were common associates at this site. This population lies within 200 m of the largely intact mixedgrass prairie of Canadian Forces Base Shilo.

Site 3

A very small Roundleaf Monkey-flower population was observed within a fjord-like formation eroded 500 m back from the south bank of the Assiniboine River, north-northwest of the town of Glenboro. Only one patch, 0.6 m by 0.3 m, was encountered in a small mossy opening in an otherwise Black

Spruce-dominated, spring-fed boggy area. This population is situated on a quarter section of mixed forest interspersed with open grasslands and cropland. The majority of flowering had already occurred by the time this site was surveyed on August 10.

Other than the sites reported here, searches of 31 spring complexes in southwestern Manitoba yielded no other new Roundleaf Monkey-flower populations. The characteristics of these springs varied widely. The majority were relatively low volume, unvegetated springs located immediately adjacent to the Assiniboine River. Little to no bowl formation or water impoundment was apparent at these sites. Some of the springs, however, shared many topographic and physiognomic features with springs in which Roundleaf Monkey-flower was found.

Direct threats to Roundleaf Monkey-flower populations were not observed at any of the sites visited in 2001, and human impact within surveyed spring complexes appeared minimal.

Discussion

Activities that could place springs in Canada at risk include logging operations, oil well development, stock watering, recreational development (spas), and water-bottling.^{1,5} Groundwater contamination by chemicals used in agriculture and industry may also threaten the biota of springs.¹ Presumably, aquifer drawdown would negatively affect spring flow and the associated biodiversity as well.

Fortunately, the landforms with which Manitoba Roundleaf Monkey-flower populations are associated are relatively inaccessible; the steep slopes and inundated sandy soil mean these areas are unlikely to attract human recreation or economic activities. While some irrigation of crops occurs in the vicinity of Roundleaf Monkey-flower containing springs in Manitoba, the potential for aquifer drawdown, at least in Spruce Woods Provincial Park and at Site 2, is low due to the large proportion of

surrounding land that is not in agricultural production (Frank Render, Manitoba Conservation, pers. comm.).

The inconspicuous appearance of Roundleaf Monkey-flower, combined with the difficult physical access to most populations, may contribute to the paucity of reports of the species from Manitoba. Future surveyors should note the topographic features common to springs containing Roundleaf Monkey-flower reported here, and focus searches for additional populations on similar areas. Surveys of major spring complexes adjacent to the Assiniboine River west of Brandon, and along the Souris River, may yield new occurrences. In addition, further attempts should be made to relocate two historically-known populations in the large sandy spring complexes east of Brandon. More detailed examinations of population size, habitat requirements, associated vegetation, and potential threats are required for known Roundleaf Monkey-flower populations.

Acknowledgements

Rare species surveys conducted by the Manitoba Conservation Data Centre in 2001 were made possible through the support of the Habitat Stewardship Program, Manitoba Conservation, Manitoba Special Conservation Fund, Critical Wildlife Habitat Program, Manitoba Habitat Heritage Corporation, Canadian Wildlife Service, Manitoba Museum of Man and Nature, and Environment Canada. Randy Dowd, Elizabeth Punter, and Dr. Al Rogosin provided valuable advice pertaining to potential Roundleaf Monkey-flower locations. We thank Anna and Ted Leighton, and an anonymous reviewer, for constructive comments on the manuscript.

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BUR OAK – AN UNCOMMON NATIVE TREE IN SASKATCHEWAN

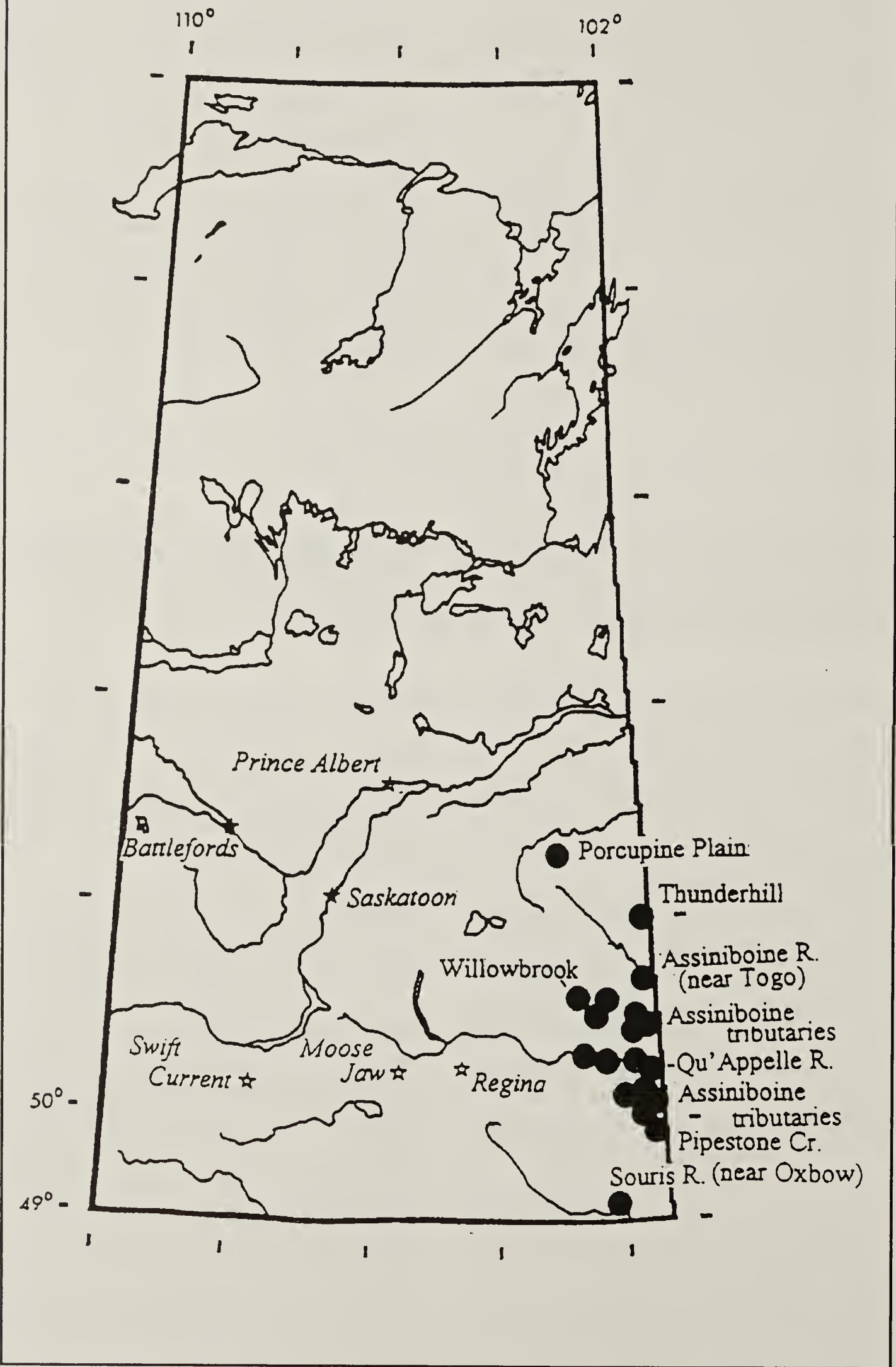
VERNON L. HARMS, #212-115 Keevil Crescent, Saskatoon, SK S7N 4P2

Native oak trees in Saskatchewan? This may even surprise some naturalists in the province. But Bur Oaks (*Quercus macrocarpa* Michx.) are indeed indigenous here. They are, however, one of the least frequent and most regionally restricted of our Saskatchewan native trees. Probably only the Rocky Mountain Juniper (*Juniperus scopulorum* Sarg.) is a rarer native tree in the province.³ Natural Bur Oak stands in Saskatchewan are found at intermittent riparian sites only near the province's eastern border east of longitude 103° W, extending from near the international boundary (lat. 49 ° N), northward to Porcupine Plain, about lat. 52° 30' N (Map 1). Except for a small stand near Porcupine Plain, the known natural stands of Bur Oak in Saskatchewan are limited to the overall Assiniboine River watershed, which includes the Souris and

Pipestone drainages. Even the Porcupine Plain site is located not far north of the watershed divide between the Assiniboine and Red Deer River drainages.

The extent of this species range has been underestimated in a number of well-known publications. The recently published Flora of North America, Volume 3, incorrectly mapped the range of this species as barely touching Saskatchewan's southeasternmost corner.¹⁰ Also the recent handbook, Plants of the Western Boreal Forest & Aspen Parkland, misstated the Saskatchewan range of Bur Oak as being only along the Qu'Appelle River system.⁷ Breitung, Boivin and Scoggan cited the species as occurring in southeastern Saskatchewan north to the Qu'Appelle River Valley, noting its occurrence also along the Souris and Pipestone valleys.^{2, 1, 11}

Map 1. *Quercus macrocarpa* (Bur Oak): Native Records in Saskatchewan.



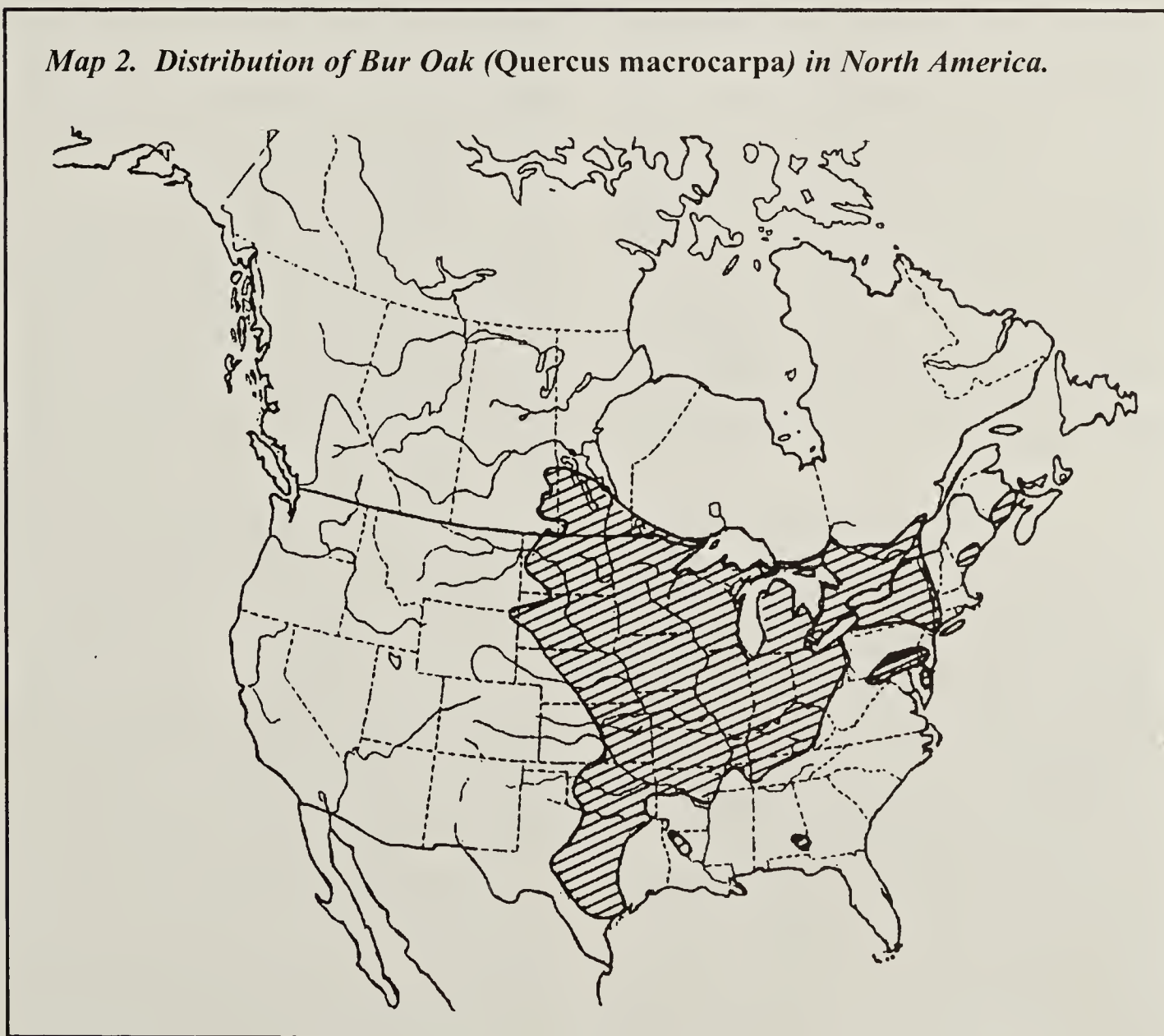
Worldwide, there are over 400 oak species, with about 90 in North America north of Mexico, 10 in Canada, but only one, Bur Oak, native in the Canadian prairie provinces of Manitoba and Saskatchewan. Bur Oak (also known by the common name “Mossy-cup Oak”, and in the west sometimes “Scrub Oak”), ranges the farthest west and northwest of any of the oaks characteristic of the eastern deciduous forests of North America. See Map 2 for the overall range of the species in North America.

The generic name, *Quercus*, is a classical Latin word for oak. The specific epithet, *macrocarpa*, refers to the large fruits (i.e. acorns) of this species. The common name “Bur Oak” was apparently ascribed because the acorn fruits, with their fringed cups, appeared similar to chestnut burs. The alternative common name, Mossy-cup Oak, is also descriptive of the strongly-fringed

acorn cups (see Figure 2). The common name, Scrub Oak, reflects this oak’s low, stunted growth habit at the western edge of its range.

In Saskatchewan, Bur Oak inhabits open-wooded or shrubby flood plains, wooded slopes of river and stream valleys, and sometimes the adjacent, more upland, shrubby or grassland-edge sites. The higher slope and upland occurrences often appear associated with springs. At its southernmost location in Saskatchewan, along the Souris River, where it is limited to about a 30 km stretch roughly 15 km on either side of Oxbow, Bur Oaks are often located along side coulees or minor tributary creeks as well as on the main riverbanks. Here the stands are mostly small and discontinuous. In the Pipestone Creek valley and along its small tributary creeks, about 80 km to the north, Bur Oak stands are relatively frequent,

Map 2. Distribution of Bur Oak (*Quercus macrocarpa*) in North America.



extending westward from the Manitoba border to past Wapella. Somewhat further north, Bur Oaks have their greatest Saskatchewan frequency in the eastern Qu'Appelle River Valley and its tributaries, occurring both on the main channel banks and along tributary creeks. Bur Oak populations extend westward in the Qu'Appelle Valley only as far as Round Lake (north of Whitewood and south of Stockholm). The fairly numerous herbarium records of oaks from the Souris River, Pipestone Creek and Qu'Appelle River date back to the 1930s.

North of the Qu'Appelle River system, intermittent stands of Bur Oak may be found along various tributary creeks of the Assiniboine River that extend west into Saskatchewan. The species was collected from about 18 km southeast of Saltcoats in 1946 by Robert Barnhart. A relatively large 3-acre stand on the Mike Tereschuk farm about 12 km (7 miles) south-southeast of Willowbrook was recorded in 1981 by Donald Hooper.⁵ Donald Hooper and Jim Jowsey collected this species in 1992 from 16 km southeast of MacNutt. In 1973, John Hudson first recorded Bur Oak from the Assiniboine River south of Togo; my notes from this area in 1986 describe only occasional, rather scattered, small "trees" mostly less than 4 m high. This Togo site is now protected as part of the Assiniboine River Ecological Reserve.

In 1980, Donald Hooper documented native stands of Bur Oak on Thunderhill, on the Manitoba border about 19 km northeast of Arran, SK.⁴ My notes about this site describe numerous oak trees occurring locally in rich aspen-oak deciduous woods, especially on the south and southwest slopes below the southern crest of the hill's summit-plateau. Donald Hooper related that his brother, Ronald, had noted the oak stands at Togo, Thunderhill, and at various other sites to the south, over a decade earlier when on insect-collecting forays. He had been interested in possible Saskatchewan

occurrences of insect species characteristic of more eastern oak forests. (See note on oak-feeding insects in this issue.)

The northernmost known Saskatchewan record of native Bur Oaks, 11 km northeast of Porcupine Plain, was also recorded by Donald Hooper, in 1980.⁴ His information plus my notes about this site, described a small stand of only eight, apparently old, scrubby, naturally-occurring oak trees remaining on a stony, rather steep, south-facing, poplar/hazelnut dominated slope along the north shore of a small, deep lake. These trees represent the remnant of a formerly larger oak stand reportedly present when George Love originally homesteaded this land, now owned by his son, Reg.

Anecdotal historical information supplied by local residents and descendants of pioneers, suggests that Bur Oak was likely more common in eastern Saskatchewan in pre-settlement days than at present. Early settlers apparently cut some oaks for firewood, lumber and fence-posts, and upland stands were sometimes cleared along with other brush for farmland.

Besides the native stands recounted above, Bur Oak has been variously planted on farmsteads and in urban areas as ornamental or street trees. Lineman recorded a few escaped seedlings growing in three locations in the South Saskatchewan River valley within Saskatoon.⁹ Such escaped plants may well occur elsewhere, but none are known to have approached reproductive stages and therefore are not considered truly naturalized.

Bur Oaks are medium-sized deciduous trees that may reach heights of 20-25 m in optimum portions of their range, but are seldom taller than 15 m anywhere in Canada or the American Great Plains. Towards the species' western and northwestern range-limits such as in eastern Saskatchewan, the plants are mainly shrub-sized to only small trees 5-10 m tall, and often scrubby in

appearance (i.e. stunted and straggling with branches crooked or gnarly) rather than the handsome trees with straight trunks, large ascending branches and rounded canopies often seen farther east. While under ideal conditions Bur Oak trunks may reach diameters of over 60 cm, in Saskatchewan they mostly are less than half that size. The deep taproots and strong spreading lateral roots of oaks make the trees wind-firm.

The twigs are stoutish, yellowish-brown to gray, initially somewhat hairy, and often develop corky wings. Their buds are round-tipped and hairy. On older branches and trunks, the bark becomes thick, rough, deeply furrowed, and grayish, with darker, scaly, corky ridges. The leaves are alternately arranged, simple, and pinnately lobed, with mostly 5-9 rounded lobes. The leaves are mostly about 15 cm long and 8 cm wide, but sometimes are much larger, reaching 30 cm lengths. The leaves of Bur Oak are notably variable in size, shape and lobing pattern (Figure 1). Overall leaf outlines vary from obovate with the median sinuses usually deepest, to fiddle-shaped with a larger, scarcely-lobed terminal portion and small lower lobes, or sometimes rather cross-shaped with the terminal and pair of median lobes larger. The rather thick, leathery leaves are shiny dark green above and paler grayish-green beneath, and sparsely to densely covered by minute, star-shaped, whitish hairs.

Flowering occurs in late spring shortly after the leaves unfold. The individual flowers are minute and non-showy, as is characteristic of wind-pollinated species, such as oaks, not adapted for attracting insect vectors. Male and female flowers are separate but borne on the same tree – a situation termed monoecious. Cross-fertilization is favored. The male flowers are found in catkins – dangling spikes with naked flowers (floral bracts falling off early) borne along a slender flexible axis. The catkins hang down in small clusters. The female flowers are solitary and scattered, or somewhat paired. All flowers have a 4-8-lobed calyx that, in male flowers, encloses 4-8 stamens and, in female flowers, encloses a single, 3-carpellate pistil, with the ovary topped by a short, thick style bearing a 3-lobed stigma.

The entire female flower is surrounded, or enclosed, by an involucre of small overlapping scales that develops into a hardened cup of fused scales around the base of the nut-type fruit (the matured ovary). This “nut-in-a-cup” is characteristic of oaks and is called an acorn. The acorns of Bur Oak are about 2-3 cm long, and the nut is deeply set, often halfway or more, into the hard cup covered with knobby, fused scales conspicuously fringed (Figure 2). The acorns ripen in a single year. Gravity is the main means of dispersal and in late autumn the heavy acorns fall to the ground near the parent tree, or they may float away in water.



Figure 1. Various Leaf Forms of Bur Oak (*Quercus macrocarpa*).

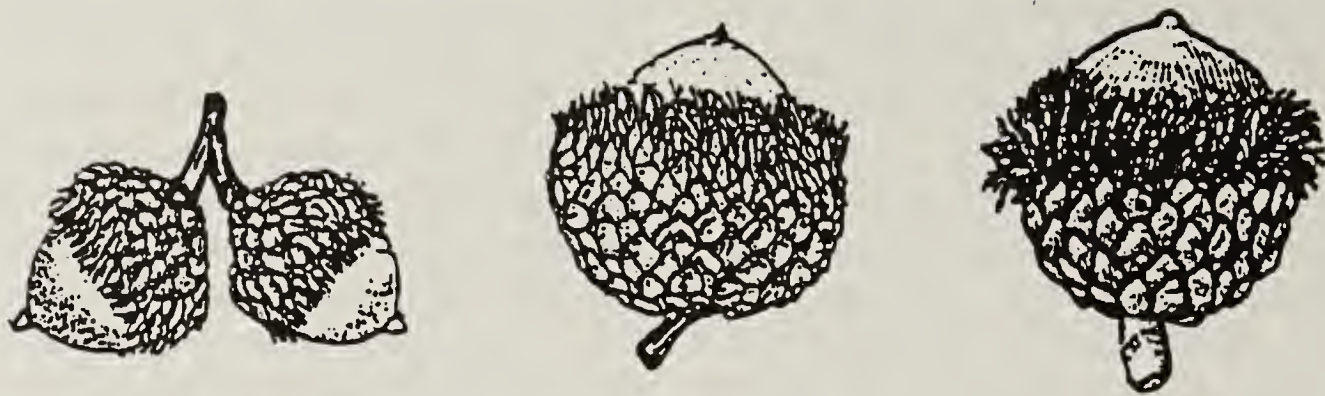


Figure 2. Acorns of Bur Oak (*Quercus macrocarpa*).

In addition, they may be gathered, carried and effectively dispersed by animals, especially squirrels. The long-term mutually beneficial relationship between oaks and squirrels has been noted.

Bur Oaks provide habitat for other species and food for wildlife, especially squirrels, but also ground squirrels, hares, rodents and deer. They also have been of economic value to humans. The inner white kernels of the acorns are sweet and edible, especially after drying, and were eaten by the Ojibwe as well as European settlers.⁸ The wood is hard and tough, similar to White Oak, making the lumber especially in demand for furniture, interior-finishing, and flooring. Because of its elasticity, it was desired for ship-building and barrel-making. The high tannin content of the bark makes oaks useful for tanning animal hides.⁷ Bur Oaks are also planted as ornamental trees. They are strong and durable, though slow-growing yard and street trees, and if well watered and cared for, become stately in appearance.

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In order to read the article "The butterfly fauna of Beaverhill Lake" in the sequence submitted by the author, start with page 93, then jump to 100, then go back to 94 and on to 103. Because the page sequence of the published article is so difficult to follow, we will send a copy of the article in the correct sequence to anyone who would like one. Please contact the editors at the address given at the top of the inside front cover of every issue. Please note our email address, as of June 2002, is <leighton@sasktel.net>.

- Anna & Ted Leighton

THE BUTTERFLY FAUNA OF BEAVERHILL LAKE, AB

D.T. TYLER FLOCKHART, 43 Wentworth Crescent, St. Albert, AB T8N 3G7
tylerflockhart@hotmail.com

Introduction

Thormin published the first list of butterflies at Beaverhill Lake in 1977, based on his personal collections and additional records from H. Coneybeare, A. Wiseley, and L. Goulden.¹⁶ He reported 26 species and suggested that another 14 species not reported at that time were likely to be present. Beaverhill Lake has been the location of several butterfly surveys in recent years. In 1996 and again from 1998 to 2001, Canada Day Butterfly Counts (CDBC, also known as 1JCs, or 4JCs in the United States), were held at Beaverhill Lake. In 2000, the author surveyed part of the area using the method known as the Pollard Walk.¹² This article describes the CDBCs and the Pollard Walk undertaken at Beaverhill Lake and presents a checklist, updated to 2001, for the area.

Beaverhill Lake is located in central Alberta, about 60 km southeast of Edmonton.⁵ It is situated within the Aspen Parkland, in a landscape dominated by cultivated land and pastures interspersed with small areas of upland deciduous forest, ponds, mixed grassland, and wetland complexes. A diversity of butterflies is likely to occur at Beaverhill Lake because the natural vegetation surrounding the lake remains fairly undisturbed. Development here is relatively minor, and butterflies from both prairie and boreal ecoregions find suitable habitat around the lake.^{5,16}

Methods

Canada Day Butterfly Counts

CDBCs are fashioned after the popular

Christmas Bird Count (CBC).¹⁵ They are annual events, held within one month of July 1, and conducted within a 24.1 km (15-mile) diameter circle. The Beaverhill butterfly count circle is centered on the Beaverhill Bird Observatory (53° 23'N, 112° 31'W) (Figure 1) and encompasses the south shore of Beaverhill Lake as well as surrounding farmland, creek and pasture.⁹ Volunteers spread out within the count circle to count and identify butterflies to species or as accurately as possible to the lowest confident taxonomic level. Start and end times are recorded along with environmental conditions such as percent sunshine, temperature, and wind direction/speed. Other information is also recorded such as number of observers, number of parties, foot and car party-hours, and foot and car party-miles. Results can be submitted to the North American Butterfly Association for publication in the annual *NABA Fourth of July Butterfly Count Report*.¹⁵

Pollard Walk

Pollard Walks, first described in 1975, involve weekly surveys over the course of an entire summer (or any time between first butterfly emergence and the last flight), normally conducted by one individual.¹² This method documents information that can be missed by single day counts and provides data sets derived from the same observer over a variety of years.¹¹

I conducted 14 Pollard Walks, in the afternoon, over a 16-week span from May 5-August 22, 2000. On one occasion a

Over the five years that counts have been held at Beaverhill Lake (1996, 1998-2001), a total of 5460 individuals of 35 species have been recorded, a mean of 1092 individuals per count (Table 1). The five most abundant species are: Northern Crescent (1453), Common Wood-Nymph (414), Clouded Sulphur (247), European Skipper (234), and Cabbage White (151). Species richness has increased with party hours and distance covered, from a low with 11 species (14.5 km over 6 hours), to 21 species (59.9 km and 8.25 hours). Not surprisingly, the number of butterflies seems correlated with number of participants, with 114, 844, 1171, 922, and 2409 butterflies counted by 2, 4, 5, 6, and 8 participants respectively.

Species that were recorded on the CDBC but not on the Pollard walk include Arctic

Skipper, Garita Skipperling, Common Branded Skipper, Tawny-edged Skipper, Long Dash, Orange Sulphur, Grey Copper, Bronze Copper, Purplish Copper, Western Tailed Blue, Silvery Blue, Aphrodite Fritillary, Mormon Fritillary, Painted Lady, and Red Admiral. There are several reasons for the difference in species. Many of the skipper species found on various CDBC's require grassy habitat that is more abundant in areas away from the Beaverhill Natural Area. Gray and Bronze Coppers, the former having dependable but isolated colonies and the latter preferring moist habitats where butterflies are not extensively surveyed, were not located on the Pollard walk but occur only occasionally around the lake. As well, an invasion of Painted Ladys into Canada, including to the shores of Beaverhill Lake occurred after the Pollard Walk was done.

FIELD SKETCHES

Perhaps more than anything, the limber shapes of natural forms give them their identity. From the earliest cave artists we have shown a love of such forms, as embodied within what I call their "living lines."

These are the spontaneous lines of motion & sentiment & purpose. Many animals read them. They are readily perceived by the human eye; the stills camera does not catch them so well.

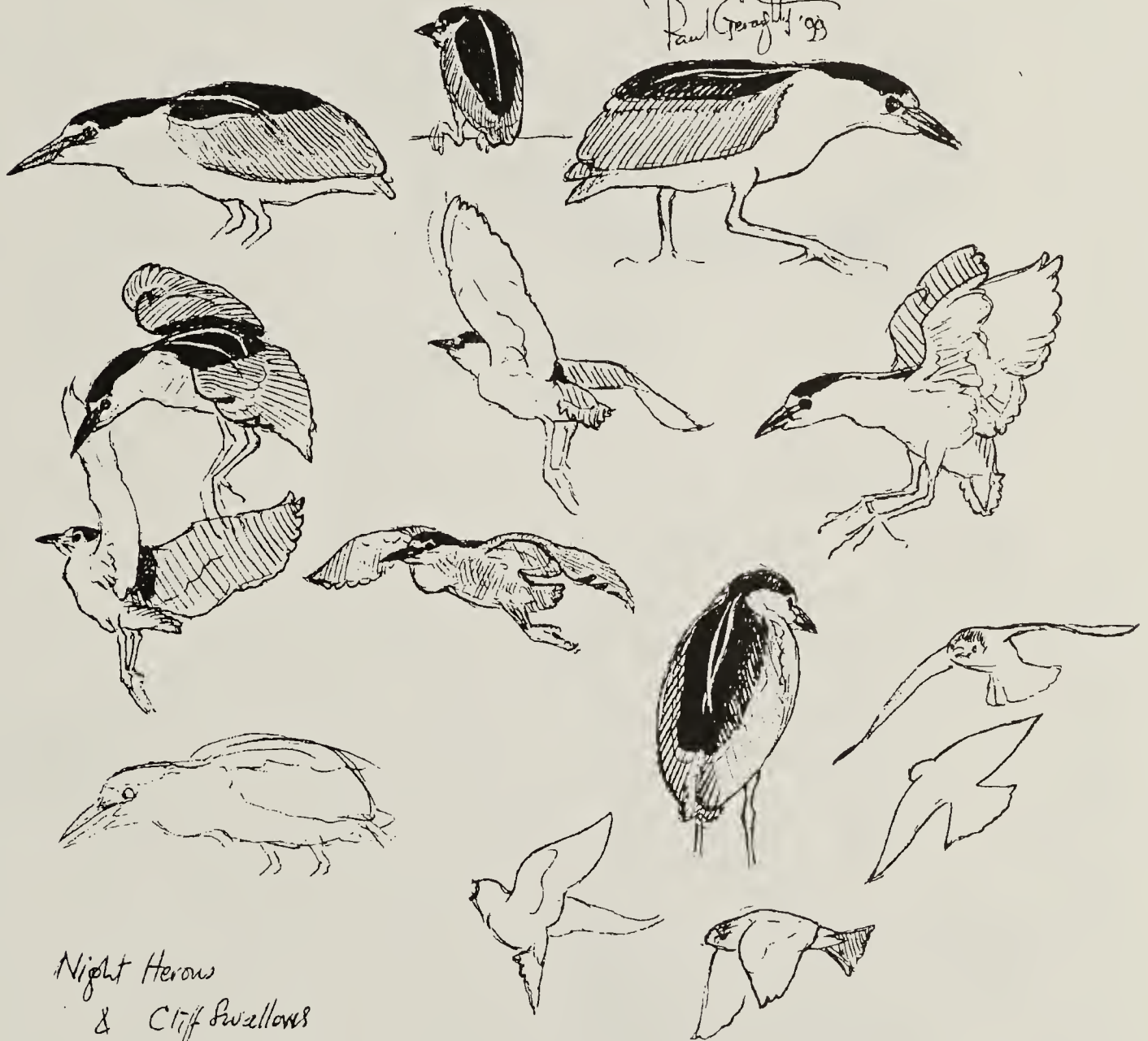
The animals remaining from the great extinction/renewals of Earth still show her original vigour. To the affectionate eye of the artist, they foreshadow people, and he delights to draw their unwavering & zestful living lines.

- Comment by Paul Genaghty to accompany initial reproduction of his "field sketches" in the BLUE JAY

● May 31 '92 MJ Liff Lock



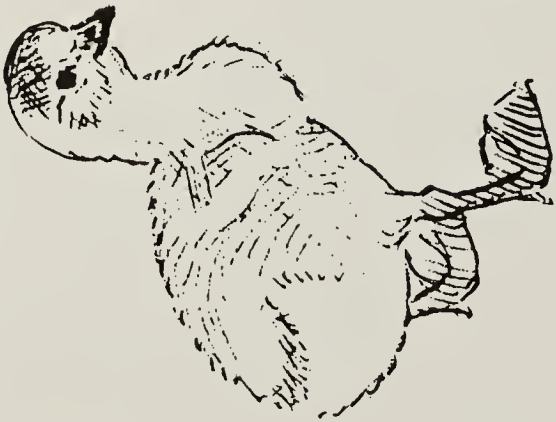
Paul Grogan '93



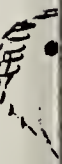
Night Herons
& Cliff Swallows

freedom
within
family

② MJ Lock May 26 '92



© 1992
Paw | Geraghty





● July 29 '99 MJ Damulke



The rabbit

Sketches

after 6 mins

@ 20 ft.

Paul Geraghty ©

amazingly narrow
forelegs

Wild somewhat astonished look
big incisors, big nose, nostrils tremulous
narrow elongate rabbit face
again, reminiscent of kangaroo, & camel tribe
eyelashes; whiskers not as visible as



Figure 1. The Beaverhill Butterfly Count circle.

*The * indicates the Beaverhill Bird Observatory, the centre of the circle as well as the start and end point of the Pollard Walk.*

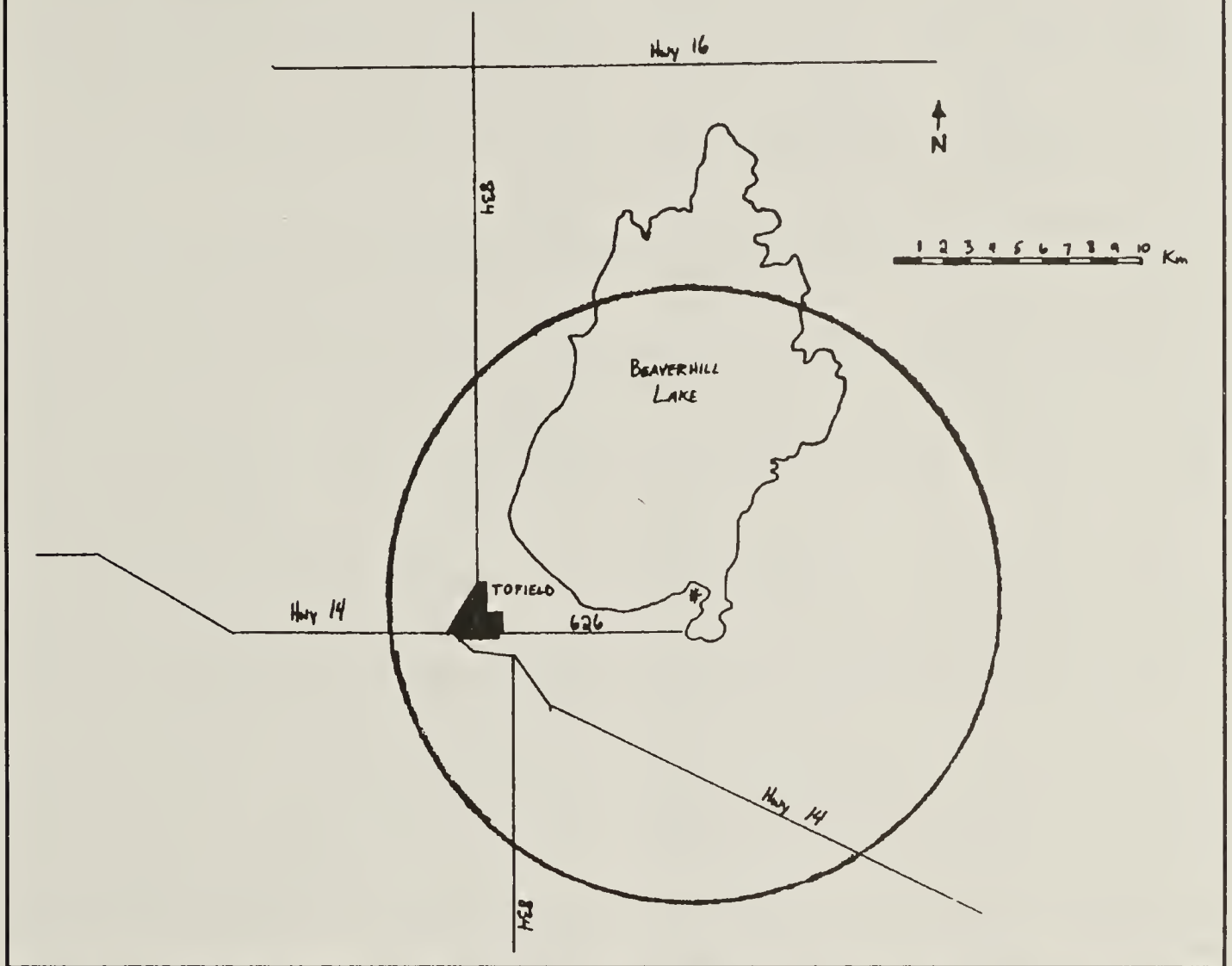


Figure 2. Woods surveyed on the Pollard Walk, August 2000.

Tyler Flockhart

volunteer conducted the survey with me. The walk took place within the Beaverhill Natural Area, and both started and finished at the Beaverhill Bird Observatory. Dominant vegetation types found within the Beaverhill Natural Area where the Pollard Walk took place include meadows interspersed within upland deciduous forest, willow dominated edge area, open meadows of ungrazed rushes, sedges and grasses, and cattail-bordered wetlands with adjacent open water (Figures 2 and 3).⁵ The length of the entire route was approximately 3 km. The same route was walked every 1-2 weeks and was only initiated when the temperature was above 15°C, there was no precipitation and winds were low. The route was walked slowly and butterflies were captured and released after being counted and identified. Those individuals that could not be identified to species were recorded as the most likely species at that particular time of the season from the genus or group in question.^{11,14} For each survey I recorded time, temperature, cloud cover, wind speed (Beaufort scale) and wind direction at both the start and end of the walk. For each butterfly encountered, the species was noted, whether it was netted

or not, sex (if determinable), wing wear and any additional behaviors or other comments. Pollard's protocol was followed except that I counted butterflies viewable for an unlimited distance as long as the species could be identified, rather than use what Pollard refers to as a "recorder's box".¹²

Results

Canada Day Butterfly Count

Total time for each of the five counts at Beaverhill Lake ranged from 6 to 10 hours with a mean of 8.05 (Table 1). Total time spent on foot was 36.75 hours (91.3%) of the total 40.25 hours. Total distance traveled on each of the counts ranged from 14.5 km to 59.9 km per count, with a mean of 32.9 km. Temperatures ranged between 16.7 and 31.1 °C. The counts have been held between July 13 and August 12; the count date changes almost annually to avoid having multiple counts on the same day and when rescheduling is required to avoid inclement weather. The count has had a variety of count compilers: Cindy Verbeek (1996), Christine Rice (1998), Barb and Jim Beck (1999), Tyler Flockhart (2000), and Richard Krikun (2001).^{17, 13, 2, 7, 9}



Figure 3. Open grassland bordered by willows and deciduous forest surveyed on the Pollard Walk, August 2000.
Tyler Flockhart

Table 1: CDBC count results 1996 and 1998-2001 ^{2,7,9,13,17}

Species	23-Jul-96	18-Jul-98	13-Jul-99	13-Jul-00	12-Aug-01
Arctic Skipper				2	
Garita Skipperling			4	23	
European Skipper		13	35	175	11
Common Branded Skipper					1
Grass Skipper sp.			30	56	
Peck's Skipper			27	4	5
Tawny-edged Skipper			10	5	
Long Dash			11	12	
Skipper sp.		1			
Can. Tiger Swallowtail				1	
Western White	2	8		2	90
Cabbage White	8	15	18	42	68
White sp.		87	5	82	151
Clouded Sulphur		58		13	176
Orange Sulphur	4				7
Giant Sulphur	1				
Pink-edged Sulphur		2			
Sulphur sp.		1753		3	38
Grey Copper			15	1	6
Bronze Copper			1		1
Purplish Copper			2		
Western-tailed Blue			1	1	
Silvery Blue	6		2	25	
Greenish Blue	4	19	16	17	
Blue sp.		12	9	35	
Gr. Spangled Fritillary		31	1	1	24
Aphrodite Fritillary		2			2
Mormon Fritillary					1
Speyeria sp.		21	5	7	21
Meadow Fritillary		2			
Boloria sp.		3	1		
Northern Crescent	66	192	916	245	34
Tawny Crescent				5	3
Satyr Comma	1	2			5
Mourning Cloak		11			3
Milbert's Tortoiseshell		1		1	2
Painted Lady					17
Red Admiral					2
White Admiral	4	3	45	31	
Common Ringlet	10	12	17	49	7
Common Wood-Nymph		161		6	247
Common Alpine	8				
Total individuals	114	2409	1171	844	922
Number of species	11	16	16	21	21
Number of observers	2	8	5	4	6
Number of parties	1	2	3	2	4
Total party hours	6	8.5	8	10	8.25
Hours by foot/car	5.5/0.5	8/0.5	7.5/0.5	9.0/1.0	7.25/1.0
Distance foot/car (km)	12.1/2.4	8.0/12.9	12.9/8.0	32.2/16.1	11.6/48.3
Total distance (km)	14.5	20.9	20.9	48.3	59.9
Sunshine (%)	100	100	98	100	100
Wind (km/hr)	0-8	0-29	24-56	0-24	0-32
Temperature (oC)	21.1-23.9	25.0-27.2	18.9-23.9	25.6-31.1	16.7-26.1

Table 2: Results from Pollard Walk, summer 2000, Beaverhill Lake, Alberta. Shaded area shows when CDBC have been done. Individual CDBC dates are indicated by the vertical lines.

Species	5-May	13-May	18-May	29-May	31-May	2-Jun	13-Jun	21-Jun	22-Jun	13-Jul	21-Jul	3-Aug	12-Aug	22-Aug	Total
1 Mourning Cloak	2			1	2										5
2 Milbert's Tortoiseshell	2	1								1					4
3 Red-disked Alpine	21	20	10												51
4 Cabbage White		1	2			1				3	5	4	8	12	36
5 Spring Azure	2														2
6 Dreamy Duskywing			2	5	5	1									13
7 Can. Tiger Swallowtail						1	1	2	2						6
8 Greenish Blue				4	12	6	3	16	15	5					61
9 Pink-edged Sulphur				1											1
10 Clouded Sulphur				2	2	5					2	21	5	2	39
11 Common Ringlet					2		1	2	2	4			1		12
12 Grey Comma					1										1
13 Common Alpine						1	2	2	2						7
14 Northern Crescent										56	75	69	10	5	215
15 European Skipper									1	2	3	4			10
16 White Admiral										6		2			8
17 Tawny Crescent										1					1
18 Western White										1				1	2
19 Great Spangled Fritillary											1	6	3	1	11
20 Common Wood-Nymph											6	102	47	4	159
21 Mustard White												3			3
22 Northwestern Fritillary														2	2

1999/2000 1998 1996 2001

Seventeen individuals in the 2001 CDBC shows how irruptive this species can be.⁴

Pollard Walk

Starting times for the walks varied from 1235h to 1430h while finishing times varied from 1401h to 1651h. The mean total time spent on a Pollard Walk was 1.85 hours with a range of 1.27 to 2.88 hours. Total time spent surveying was 25.88 hours, giving an average of 0.413 butterflies per minute. While both start and end temperatures were recorded, there was little temperature change with a mean average high of 21.3 °C during the surveying time. Average overall cloud was 25.7% over the entire survey, and average wind speed was 2.2 on the Beaufort scale (Beaufort scale 2 = 6-12 km/hr, wind felt on face, leaves rustle).

In the 14 Pollard Walks, 22 species were recorded (Table 2). The 5 most abundant species are Northern Crescent (215), Common Wood-nymph (159), Greenish Blue (61), Red-disked Alpine (51), and Clouded Sulphur (39). Abundance of individuals ranged from 7 to 211 (mean 46.3) while species richness ranged from 3 to 9 species per day (mean 5.4). The highest number of individuals was seen on August 3rd, while the largest number of species was on July 13th, which was also the date of the CDBC at Beaverhill in 2000. (A regular Pollard walk was conducted on July 13th 2000 and these values were added to the CDBC totals for the day.) Abundance of individuals was greatest in the latter part of the summer from mid-July to mid-August, while species richness seemed to vary across much of the survey with the peak being mid-July.

The data in Table 2 suggest that some species show distinct single, double or even triple brood patterns. Clouded Sulphurs appear double brooded with a flight from late May to early June, and also one from the end of July to end of August, while the Cabbage White appears triple brooded, with one brood in early May, one in early June, and a final one starting in mid-July.

The Common Ringlet had an extended flight period that almost appears as a second brood. The main flight appears to be from the end of May to mid-July, while a single individual was recorded in mid-August almost a month after most ringlets had disappeared. This may support the suggestion that there are two broods in Alberta.⁴

Butterfly checklist for Beaverhill Lake

In total, 52 butterfly species have been recorded at Beaverhill Lake; they are presented in Table 3. This up-to-date checklist combines previously published material, CDBC, Pollard walk data, and records from Chris Schmidt who frequents many areas of the lake to collect butterflies. Also included is an additional personal record of Northern Pearly Eye not recorded on any survey, but spotted within the Beaverhill Natural Area, increasing the known Alberta flight dates by four days.⁴

Surveys of the butterfly fauna at Beaverhill Lake reveal similar species composition except for rarities. Thormin reports rarities such as Common Roadside Skipper, Arctic Blue, Variegated Fritillary, Gorgone Checkerspot, and Compton Tortoiseshell, usually with single records.¹⁶ Rarities observed during CDBCs at Beaverhill Lake are Arctic Skipper, Common Branded Skipper, and Mormon Fritillary, while rare butterflies seen during the 2000 Pollard Walk are Pink-edged Sulphur, Spring Azure, and Gray Comma.

Perhaps the most interesting addition to the list of butterfly fauna at Beaverhill is the European Skipper, an introduced species with localized populations. It has been introduced since Thormin's surveys and has colonized the Edmonton area, and seems to be expanding outward.^{1,3,4,8,10,16} Probably all European Skippers found in Alberta are part of a continuous, expanding population.⁴ Previous to 1996, no records are known of European Skippers at Beaverhill Lake, while count data reveals an increase from 0 butterflies per hour in

Table 3: Butterfly checklist for Beaverhill Lake, Alberta										
Species	1977 ¹⁶	1995 ⁴	1996 ¹⁷	1998 ¹³	1999 ²	2000 ⁷	2000	2001 ⁹	2001 *	2001 **
			CDBC	CDBC	CDBC	CDBC	Walk	CDBC		
Dreamy Duskywing	X	X					X		X	
Persius Duskywing	X								X	
Arctic Skipper	X					X				
Garita Skipperling					X	X				
European Skipper				X	X	X	X	X		
Common Branded Skipper								X		
Peck's Skipper					X	X		X		
Tawny-edged Skipper					X	X				X
Long Dash					X	X				X
Common Roadside Skipper	X	X								
Canadian Tiger Swallowtail	X	X				X	X			X
Western White	X	X	X	X		X	X	X	X	X
Mustard White	X	X					X			X
Cabbage White	X	X	X	X	X	X	X	X	X	X
Clouded Sulphur	X	X		X		X	X	X	X	X
Orange Sulphur	X	X	X					X		
Giant Sulphur			X							
Pink-edged Sulphur				X			X			
Grey Copper					X	X		X		
Bronze Copper					X			X		
Purplish Copper	X	X			X					
Western Tailed Blue					X	X				
Spring Azure							X			
Silvery Blue	X	X	X		X	X				X
Greenish Blue	X	X	X	X	X	X	X			X
Arctic Blue	X	X								X
Variegated Fritillary	X	X								
Great Spangled Fritillary				X	X	X	X	X		
Aphrodite Fritillary				X				X		
Northwestern Fritillary	X	X					X			
Mormon Fritillary								X		
Silver-bordered Fritillary		X								
Meadow Fritillary	X	X		X						X
Gorgone Checkerspot	X	X								
Northern Crescent	X	X	X	X	X	X	X	X		
Tawny Crescent						X	X	X		
Salyr Comma	X	X	X	X				X	X	
Grey Comma							X			
Compton Tortiseshell	X	X								
Mourning Cloak	X	X		X			X	X	X	
Milbert's Tortiseshell	X	X		X		X	X	X	X	
Painted Lady		X						X	X	
West Coast Lady									X	
Red Admiral	X	X						X		
White Admiral			X	X	X	X	X			
Northern Pearly Eye										X
Common Ringlet	X		X	X	X	X	X	X	X	
Common Wood-Nymph		X		X		X	X	X		
Red-disked Alpine		X					X		X	
Common Alpine	X	X	X				X			
Uhler's Arctic									X	
Alberta Arctic									X	

* Chris Schmidt (pers. comm. Jan 10, 2002) records from areas around lake and surrounding woodlots
 ** Pers. Obs. by author, Lisa Takats and Charles Priestley, 4 individuals found in the Beaverhill Natural Area, July 14, 2000

1996 to a high of 17.5 butterflies per hour in 2000. These data are consistent with surveys conducted at the nearby Redwater sand dunes, which has been surveyed for years.⁸ A population now appears to be established in the Beaverhill area. European Skippers have now been recorded on

butterfly counts in the past two years around the Edmonton region including Beaverhill Lake, Devon-Calmar, Edmonton, Elk Island, St.Albert-Wagner Bog, Strathcona, Bruderheim, and Kinsella (Barb Beck, pers. comm. October 12, 2001).

Conclusions

CDBC and Pollard walks compliment each other, and together reveal more information than either could alone.¹² CDBC are a snapshot of butterfly abundance and species diversity at one point in the summer. Species that are long-lived or remain as flying adults for many months through a variety of environmental conditions will likely always be counted. Others that require particular plants in bloom to feed or strict climatic conditions to emerge as adults are more seasonal in occurrence. If conditions are favorable, those particular species may be the most numerous encountered, while under unfavorable conditions they may be extremely scarce. The Common Wood-nymph is a prime example (Table 1).

Information from CDBC and Pollard Walks can be put to use to gather species lists for particular areas, document species range extensions, better define flight dates and hopefully, be used to determine long-term population fluctuations. Although five years of data are not sufficient to determine strong trends, they do give indications as to those species that are common occurrences, species that require further research, and species that may have population fluctuations.¹⁵

Anyone who is promoting butterfly conservation will admit that getting people interested in the subject is the first step. As the number of CDBC per year has been increasing, this seems to be occurring. Alberta is currently the leader in North America with approximately 40 butterfly counts each summer. The next step would be to promote the Pollard Walks to those individuals who are interested in conducting their own research at more specific areas and devoting more time to the cause. Acreage owners, and people with cabins, those in cities who stroll through the river valleys or fields adjacent to their homes are all prime candidates. Perhaps in the long-term these data can be collected and published to the same degree that CDBC are, in a printed

record form, and on a continent wide level.

By determining a butterfly list for the Beaverhill Natural Area, I hope to increase awareness of the area's biodiversity and to help recognize the area's biological value. The Beaverhill Natural Area, already a well-known destination for bird watchers, also has potential for butterfly watching.⁶

Acknowledgements

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Milbert's Tortoiseshell, a common species around Beaverhill Lake in spring and fall.

Tyler Flockhart

GETTING TO KNOW YOUR TICKS

TERRY D. GALLOWAY, Department of Entomology, Faculty of Agricultural and Food Sciences, University of Manitoba, Winnipeg, MB, R3T 2N2.

Terry_Galloway@umanitoba.ca



Figure 1. Male (left) and female (right) American dog ticks, *Dermacentor variabilis*. Note the distinct white markings on the scutum of each specimen. Terry Galloway

When I moved to Manitoba in 1973, everybody warned me about the cold winters and the hot summers. Many people warned me about the abundance of ferocious mosquitoes. Not one person, though, said anything about the wood ticks! Not one. My first encounter with ticks was on a trip to the field to collect mosquito larvae in May. I was rather amazed when we were returning to our truck and my companions started stripping down and removing ticks. I had only ever seen one tick, on a cat, in my 23 years in southern Ontario, and that was considered an extreme rarity at the time. But here we were just outside of Winnipeg, removing dozens of ticks from our own bodies. What kind of place was this?

Since then, I have had many opportunities to study ticks in Manitoba and to talk to people about ticks and tick lore. My first research experience was in 1979 and 1980, with a graduate student who was particularly interested in the juvenile stages of the wood tick or American dog tick, *Dermacentor variabilis* (Say) (Burachynsky 1982; Burachynsky and Galloway 1985). Since that time, I have been involved with various tick survey activities in Manitoba, notably the surveys to determine the distribution and abundance of the blacklegged tick or deer tick, *Ixodes scapularis* Say, in Manitoba and Saskatchewan. In this article, I briefly describe many species of ticks on the prairies, and discuss the life cycles of some

of the more commonly encountered species. Ticks are amazing animals, and I hope I can convince you to look at them in a slightly different light after you have read this account.

Ticks on the Prairies

There are 34 species of ticks recorded in Canada (Wilkinson 1979; Lindquist *et al.* 1999), of which at least 11 are known for the prairie region. There are other species, perhaps an additional four or five, that are currently unknown, but which may eventually be discovered in Canada, and there are many others which we see mainly as accidental introductions on birds, pets, domestic animals or humans, which are unlikely to become established here. For some insight into the potential for importation of exotic ticks, refer to Keirans and Durden (2001), who reported 99 species imported into the United States. The following is an account of some of the more frequently encountered hard ticks in the Canadian Prairies. There are species of soft ticks, also called argasid ticks, which are parasites of birds, bats and some rodents, but these are generally not common on the prairies and will not be considered here.

Dermacentor spp.

This genus includes three of the most conspicuous of all the ticks: *D. variabilis* (the wood tick, or American dog tick), *D. andersoni* Stiles (the Rocky Mountain wood tick), and *D. albipictus* (Packard) (the winter tick or moose tick). Paul Wilkinson has provided the most extensive discussion of these ticks in Canada.¹³ The adults of all three species are generally dark, reddish brown, and beautifully ornamented with white streaks and spots on their backs. Females, as in all species of hard ticks, have a plate-like scutum that only partially covers the anterior region of the back, while the scutum in males extends all the way across the back. It is the scutum that bears the white markings, so it is easy to recognize at a glance whether you have found a male or female (Figure 1).

The American dog tick, *D. variabilis*, can be extremely abundant throughout southern Manitoba and southeastern Saskatchewan. There is evidence that this tick has gradually been increasing its range north and west in recent years. The adults are active from the time the snow disappears right through to early August, though the main peak in abundance is in May and June. Under favourable weather conditions, the adults rest in the grass and low shrubs waiting for a passing host, their front legs poised to latch onto hair or fabric. They do not jump, and they generally stay in low vegetation, not venturing into the overhead branches of trees. They will attach to a wide variety of host species, including foxes, coyotes, wolves, dogs, skunks, porcupines, racoons, cats, bears, badgers, deer, cattle, horses and humans. Females require several days to engorge fully with blood. At this time, males on the host seek out feeding females and mate with them. If you flip up a feeding female to expose her underside, you will often find a male or group of males. When a female has taken all the blood it can, it drops to the ground and seeks a sheltered spot to lay its eggs, of which there may be 1000-7000, laid over about three to six weeks.³ After all the eggs are laid, the female dies. Six-legged larvae hatch from the eggs and remain dormant in dense clusters in the leaf litter, where they will spend their first winter. In the spring, they crawl a short distance onto the surrounding vegetation, and attach to small rodents, especially voles, deer mice, jumping mice and chipmunks. When they are engorged with blood, they drop to the ground and moult to eight-legged nymphs. These nymphs actively seek a host during July and August, including the same species used by the larvae, to which they attach and feed to engorgement before dropping to the ground, where they moult to eight-legged adults. Most of these adults become dormant and spend the winter in the leaf litter, before becoming active in the spring and seeking their hosts. Just think, the majority of the adult wood ticks that we see in the spring would have begun their

lives at least two years earlier. It is likely that these adults must find a host on which to feed, or they will die without surviving another winter.

The Rocky Mountain wood tick, *D. andersoni*, is found in western Canada, throughout south-central British Columbia, southern Alberta and east into southwestern Saskatchewan. The life cycle of this species is very similar to that of the American dog tick, except that the timing of the various stages is slightly different. When the larvae hatch from the eggs, they don't become dormant, but immediately begin to search for suitable hosts. Once they have acquired a blood-meal, they drop to the ground and moult to the next stage, but in this case, it is the nymphs that become dormant and spend the winter. The nymphs become active in the following spring, and once fed, moult to adults. These adults become dormant and spend the winter in the litter on the ground. The adults become active early in the spring, feed on medium-sized to large hosts, including people.

The winter tick, *D. albipictus*, displays a completely different life cycle from its close relatives. The larvae become active in September and form dense aggregations on the vegetation, especially in areas where moose are abundant. Although they are most often associated with moose, they will also attach to deer, elk, cattle and horses. Humans, too, are sometimes infested, and I have dealt with calls from many anxious people who have found themselves covered by hundreds of tiny larval ticks. As the season advances, the larvae feed and moult to eight-legged nymphs, while still on the same host. After the nymphs have fed, usually from October to mid-February, they moult to the adult stage, but again remain on the same host animal.⁴ This tick can infest moose at extraordinary levels, frequently in the tens of thousands,¹¹ and have tremendous impact on the health and well-being of the animal, especially where the range of moose

may be restricted. They may even be responsible for the death of their host.

***Haemaphysalis* spp.**

There are two species of *Haemaphysalis* that may be encountered in the Prairie region. *Haemaphysalis leporis-palustris* (Packard) is very common and abundant on rabbits and hares, especially in the ears. This small tick rarely attacks humans or domestic animals, but the juvenile stages may be occasionally found on birds. *Haemaphysalis chordeilis* (Packard) is a parasite of grouse, especially Sharp-tailed Grouse in parklands, and seems to be relatively host specific. Despite their host specificity, they require three different hosts to complete their life cycle.

***Ixodes* spp.**

Ixodes is the genus with the greatest diversity of species in Canada, with at least seven possible species endemic to the Prairies. Fortunately, most parasitize only a small number of host species, and very seldom come into contact with humans or their pets. For example, *Ixodes angustus* Neumann and *Ixodes muris* Bishopp and Smith are mainly parasites of mice and voles, *Ixodes sculptus* Neumann and *Ixodes kingi* Bishopp mainly attack ground squirrels, *Ixodes cookei* Packard is usually found on woodchucks, and *Ixodes banksi* Bishopp typically parasitizes beavers.

There is one vagrant species of *Ixodes* that occurs in the Prairie Provinces, the blacklegged tick or deer tick, *Ixodes scapularis* Say. Although this species has gained notoriety due to its role as vector of the pathogen that causes Lyme Disease throughout much of eastern North America, there is no conclusive evidence that *I. scapularis* has become established and actually breeds in any of the Prairie Provinces. However, they are readily transported great distances by migrating birds, and since these vagrant ticks may have become infected with pathogens in their endemic homes, they have the potential to

transmit those pathogens in regions quite far removed from the source. Infected ticks have been found in Manitoba, where 10% to 15% carry the pathogen (Galloway *et al.* 2001). Since infected ticks are widely distributed but are not very frequently encountered, there is a small but persistent risk of infection in humans and their pets. The larvae and nymphs prefer to feed on small mammals, such as mice, voles and chipmunks, but they readily attach to birds, cats, dogs and humans. Adults of *I. scapularis* tend to feed on larger animals, including deer, dogs, cats and humans. In the Prairie Provinces, this species is most abundant in Manitoba, where it was first recorded in 1989,⁵ then known as *Ixodes dammini*, but it has since been recorded in Saskatchewan,⁹ and in Alberta.¹² For details on the life cycle of *I. scapularis* in Ontario, Lindsay *et al.* have published the most comprehensive account. One aspect of the life cycle of *I. scapularis* should be emphasized.¹⁰ Adults are the stage most frequently found on humans and pets in the Prairies, and this stage occurs most abundantly in the fall. In Manitoba, where over 200 *I. scapularis* have been collected during 1996 to 2001 (Lindsay and Galloway, unpublished), nearly all were adults, and the main peak of activity was September to November. Adult *I. scapularis* will remain active in the field until there is a good cover of snow on the ground. Adults that do not find a host in the fall will overwinter and resume their activity in the spring. Therefore, a second peak of adults occurs during April to June. Because people are so accustomed to finding wood ticks in the spring, they often fail to check themselves, their children and their pets when they have visited tick habitat in the fall.

***Rhipicephalus sanguineus* (Latreille) and *Amblyomma americanum* Linnaeus**

The brown dog tick, *R. rhipicephalus*, and the lone star tick, *A. americanum*, are interesting ticks that aren't usually considered as part of the prairie tick fauna. In recent years, however, there are frequent

records of the brown dog tick (Lindsay and Galloway, unpublished). This species is incapable of surviving our harsh prairie climate, but may readily become established in kennels and even in people's homes as a result of accidental introductions. The lone star tick is found in the southern United States, and will readily attach to humans and their pets. As people travel widely in the southern United States, they occasionally return with unwanted surprises, and it is always wise for travellers to check carefully for ticks whenever they have been hiking, camping or otherwise visiting suitable tick habitats.

What to do when you find an attached tick

Ticks are marvellously adapted ectoparasites that rely on blood to complete their development and to reproduce. Because they inhabit many of the same spaces that humans enjoy, we must learn to use a few common sense precautions.

1. If you are in tick-infested habitat, check yourself, your children and your pets carefully for ticks as soon as possible after visiting the location or as often as practical when in the field. If a tick is infected with a pathogen, the sooner it can be removed after it has attached, the less risk there is of transmission.

2. If you find an attached tick, don't panic. The lore of tick removal is extensive, and most of the elaborate means people employ to remove attached ticks are unnecessary. Ticks become attached by embedding their mouthparts into the skin. These mouthparts are armed with recurved teeth that anchor the tick to the host. There may even be salivary cement on the skin surface to attach the tick more firmly. The best method of tick removal is to grasp the tick as close to the skin surface as possible using tweezers, or your thumb and forefinger, and to pull the tick with slow, gradual effort until it comes away. It is not unusual for a small patch of tissue to adhere to the mouthparts. Some ticks, the *Ixodes* spp. for example,

have much longer and more fragile mouthparts than the wood ticks. Consequently, the mouthparts are frequently broken when the tick is removed and may form a source of secondary infection.

3. It is important that you apply an antiseptic to the bite wound. Pay attention to where ticks have been attached, take note of any unusual reaction associated with tick bites, and report these to your physician or veterinarian as soon as possible.

4. If the tick in any way looks unusual to you, in either its size or colour, it is a good idea to save the specimen. If there are any questions about whether you have acquired a tick-borne pathogen from the bite of that particular tick, you can get the tick identified and perhaps even tested for the pathogen. The best way to keep a tick is to store it in an air-tight container in the freezer. Your local veterinarian can assist you in having the ticks identified by an appropriate laboratory.

Acknowledgements

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Mourning Doves

Bob Davis

NOTES AND LETTERS

OAK-FEEDING INSECTS IN SASKATCHEWAN

The stands of Bur Oak in eastern Saskatchewan provide habitat for unique species of insects. The following is a list of some Saskatchewan insects that feed on different parts of the oak trees themselves and whose populations in the province are restricted to the oak-growing areas in the southeast.

ON THE LEAVES:

Butterflies (caterpillars) – Edwards' Hairstreak (*Satyrium edwardsii*), Banded Hairstreak (*Satyrium calanus*), Sleepy Duskywing (*Erynnis brizo*), and Juvenal's Duskywing (*Erynnis juvenalis*).

Moths (caterpillars) – White-headed Prominent (*Symmerista albifrons*), Oak-devouring Moth (*Symmerista canicosta*) and Oak Leaf Roller (*Agryrotaenia quercifoliana*).

IN THE TRUNKS:

Beetles – Long-horned Beetle (*Purpuricenus humeralis*) and Metallic Wood-borer (*Chrysobothris rugosiceps*).

ON THE ACORNS:

Beetle – Nut Weevil (*Curculio strictus*) and a blastobasid moth, *Valentinia glandulella*, whose larvae live inside acorns hollowed out by acorn weevils.

UNDER THE BARK:

Beetle – Bark Weevil (*Magdalis barbata*).

ON THE SAP:

Bugs – Tree Hoppers (*Cyrtolobus helena*, *Cyrtolobus muticus*, *Cyrtolobus ovatus*, *Telamona spreta*, *Telamona molaris*, *Telamona monticola*, *Glossonotus univittatus*).

- Ronald R. Hooper, Box 757,
Fort Qu'Appelle, SK S0G 1S0

DISCOVERY OF A "LOST" SPECIMEN OF THE AMERICAN WATER SHREW FROM CHURCHILL, MB



American Water Shrew

Donald L. Rubbelke

The only record of the American Water Shrew (*Sorex palustris*) from Churchill, Manitoba, is a specimen taken by Mrs. I. H. Smith of Churchill on 20 October 1953.⁷ The specimen was preserved in alcohol and deposited in the exhibits collection of the Department of Zoology, University of Manitoba (later named the Stewart-Hay Memorial Museum), where it was identified by Donald A. Smith.⁷ Collected at the edge of the coastal tundra (58° 43'N, 94° 07'W), this record was 370 km farther north than previous reports of the American Water Shrew (hereafter referred to as water shrew) in Manitoba.¹¹

The northern limit of the water shrew's range in Manitoba has been defined by many

writers based in part on the Churchill specimen.^{1,2,4,9} For example, in the first volume of the *Handbook of Canadian Mammals*, C.G. van Zyll de Jong included this record in the species account for the water shrew⁸, although he did not examine the specimen (Michel Gosselin, pers. comm.). As well, R.E. Wrigley included the water shrew, on the basis of this record, in a diagram illustrating the zonation of small mammals in relation to vegetation and topography in the Churchill-Seal River region.¹⁰

By the mid-1970s, this specimen could not be located and was assumed to be lost.¹¹ I found it while examining mammals in storage in the Stewart-Hay Museum. The fluid in which the specimen (catalogue number 115, mammals) had been preserved had evaporated; however, the identification of the desiccated and faded specimen was readily confirmed. The original label accompanies the specimen, but there are no measurements and the sex was not determined. The specimen is now housed in the vertebrate collections of the Manitoba Museum of Man and Nature (MMMN no. 22006).

This remains the only record of the water shrew from the immediate vicinity of Churchill. There are no specimens in the collection of the Churchill Northern Studies Centre (M.A. Goodyear, pers. comm.), and Paul Watts (pers. comm.), biologist and longtime resident of the Churchill area, has not encountered this species there. In 1973, water shrews were not among the small mammals collected by Wrigley and co-workers near Seal River (59° 04'N, 94° 47'W), on the west coast of Hudson Bay, 56 km northwest of Churchill, nor near Churchill.¹⁰

Specimens collected in the 1970s by Wrigley and collaborators extended the known range of the water shrew north and west of Churchill.¹¹ One of these specimens (MMMN 6116) was taken on 4 August 1975

at Little Duck Lake (59° 29'N, 98° 34'W), 225 km northwest of Churchill at the edge of the barren grounds and 450 km north of previous records.¹¹ From 16 to 26 July 1979, Wrigley (pers. comm) trapped three species of shrews but no water shrews at York Factory (57° 00' N, 92° 18' W). In 1982, two specimens (MMMN 13885, 13886) were taken on 8 July by J.E. Dubois and G.E. Lammers, 42 km northeast of York Factory, at the mouth of Opoyastin Creek (57° 07'N, 91° 39'W), near the coast of Hudson Bay. Ongoing surveys of small mammals in Wapusk National Park (57° 46' N, 93° 22' W), 35 km southeast of Churchill have not revealed the water shrew (J.E. Dubois, pers. comm.).

Given the paucity of specimens of the water shrew, additional documentation is needed from localities in northern Manitoba to determine the distribution and status along the northern edge of the range. Specimens collected recently in Alaska and the Yukon Territory not only extended the documented range north of previous records, but also suggest that water shrews are more widely distributed than was believed previously.^{3,5,6}

Acknowledgements

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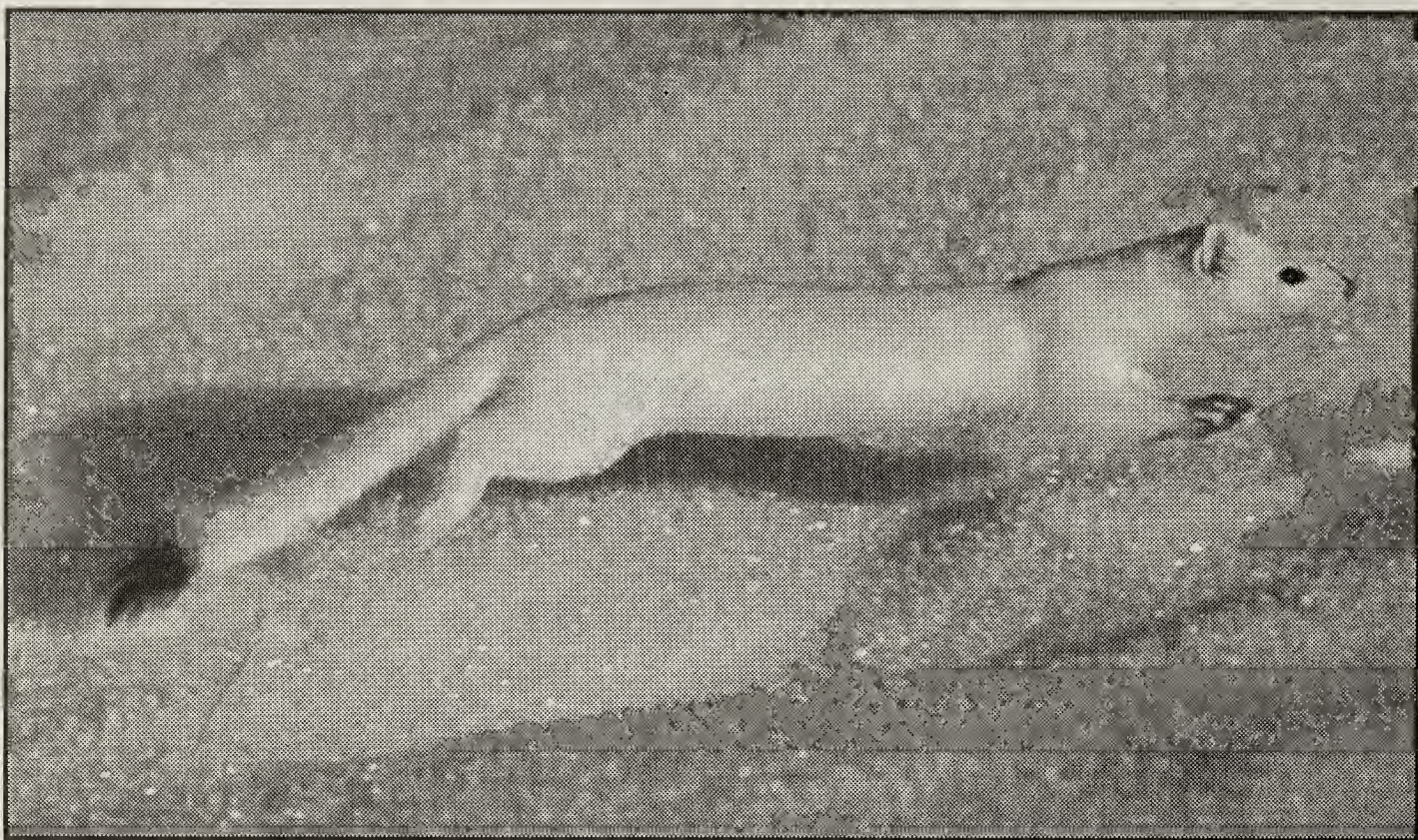
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DEFENSIVE BEHAVIOURS OF LONG-TAILED WEASELS

Weasels that have turned white before the snow comes are conspicuous, especially if they venture out during the day. In late November 2001, while walking along quietly on snow-free ground, I spotted two weasels; one on open grassland near Beaverhills Lake in central Alberta, the other on the sparsely treed banks of the North Saskatchewan River east of Edmonton. Their size identified them as Long-tailed Weasels. Alarmed by my approach, they darted away to safety. The first one disappeared into a burrow, the second climbed a willow tree.

The grounded weasel emerged again very soon, craning its neck out of the hole to watch me, while I stood quite still 12-15 m away. After a while, the animal apparently wanted to move on, for it suddenly raced off, but it got no farther than 2-3 m and abruptly turned back to its hole. It did this 5 or 6 times at intervals of a few minutes. Curiously, at each lightning-quick turn around, the weasel jumped up vertically, clearing the ground by some 70-80 cm. Eventually, it gained enough courage to complete its departure, streaking away 10-12 m and dropping out of sight into another burrow that it evidently knew to be there. I walked closer and watched the animal briefly, while it poked its head up and chattered angrily.

The weasel's false starts reminded me of a ball player trying to steal a base. However, the most remarkable aspect of its deceptive take-offs were the high jumps at the turn around. This, in my view, is a defensive/aggressive tactic intended to inhibit an attacking owl or hawk from seizing the weasel. Similar high-jumping reactions were displayed by muskrats and jack rabbits that I saw attacked, respectively, by Bald Eagles and a Gyrfalcon.¹ The dodging tactics apparently worked well, for in each of four cases the intended victim eventually made



Long-tailed Weasel

Gordon Court

its escape or was let go. The aggressive/defensive routines of Muskrats may be well-known to other Blue Jay readers who have cornered a rat on dry land. If closely confronted by people, the animal lunges at you, which has the immediate effect that you back off in a hurry!

The second Long-tailed Weasel I saw last November ran to and quickly ascended a medium-sized willow tree, some 6 m away from me. It climbed to a branch about 3 m above the ground. When I approached a few steps, the weasel suddenly jumped down and streaked off to the next tree a few metres away, where I left it alone.

Tree-climbing by weasels is in my view an anti-predator reaction.² It is a well-known escape routine for cats, both wild and domestic. Also the Pine Marten and even, on occasion, the mink resort to trees when needed!² For prairie weasels, climbing trees may be especially significant as a way of escaping from Coyotes and Red Foxes, which tend to kill any weasel they can catch. The current status of the Long-tailed Weasel in Canada appears to be rare or uncommon, which may well be linked to the near ubiquitous presence of the wild canids.² No

doubt, other factors are involved as well, such as habitat fragmentation, lack of rodent prey and the resulting scarcity of ground burrows in which weasels can take refuge when needed.

I would be interested to hear from people who have actually seen hawks or owls swoop at weasels. Did they jump up in defense? Of course, if the raptor catches its prey by complete surprise, the weasel may not have had a chance to defend itself.

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- Dick Dekker, 3819-112A Street N.W.,
Edmonton, AB, T6J 1K4,
tj_dick_dekker@hotmail.com

COUGAR PHOTOGRAPHED NEAR TREHERNE, MB

The status of the Cougar in Manitoba up to 1982 has been reviewed in depth and well summarized, including documentation of an actual specimen shot at Stead, 35 miles northeast of Winnipeg in December 1973.^{2,3} Nevertheless, to our knowledge, a live, wild Cougar has not been photographed in Manitoba.

We live in south-central Manitoba, overlooking the Assiniboine River Valley, nine miles north of the village of Treherne. In the six years we have lived here, we have heard from neighbours a number of reports of Cougar sightings. We have personally encountered tracks we believe to be from Cougars, and have found two deer kills which appeared to have been the work of Cougars.

The first kill, a fork-horn White-tailed Deer, was found December 1996, about half a mile east of our home, in an area heavily

frequented by deer. Though snowfall had obscured any tracks, the frozen carcass lay partially consumed and abandoned, seeming to suggest that a Cougar had fed only once or twice. The skin on the back had been peeled like a banana, and most of the back had been eaten. The position of the head seemed to indicate a broken neck. We believe that this kill could not have been the work of coyotes, as in our experience, coyotes would have stripped the carcass to the bone in a matter of days.

The second kill, found on an early morning in June 2000 on the northern edge of our prairie, less than a quarter mile from our home, consisted of the hindquarters of a good sized white-tail fawn, severed across the small of the back. The exposed flesh was clean and fresh. We speculated that we had disturbed the predator as we enjoyed our early morning walk. The method of disarticulation and the size of the hindquarters seemed to rule out a coyote. The fact that a neighbour had reported seeing a Cougar take a fawn the previous week



Figure 1. Close-up of Leon Pewarchuk and the cardboard cutouts.

Doug Head



Figure 2. Leon Pewarchuk and the cardboard cutouts, close to the location of the cougar sighting.
Doug Head



Figure 3. Doug Head's cougar photograph, slightly enlarged.

about a mile east of us seemed to support our hypothesis.

In October 2001, we heard on the local grapevine that Doug and Pauline Head, who live two miles south of us, had not only seen a Cougar, but had also photographed it. With considerable excitement we contacted the Heads, who confirmed that Doug had taken a series of photographs of a Cougar in an alfalfa field south of their home late in the afternoon of October 27, 2001. Doug and Pauline had watched the Cougar for approximately half an hour as it apparently hunted small rodents in their alfalfa field. Doug photographed it several times during that period. The best photo, the last one taken, shows the animal on the edge of lengthening late-day shadows, just as it was disappearing behind some bushes (Fig. 3).

Doug loaned us this photo, copies of which we sent to, among others, Carol Scott, then Acting Director of the Wildlife Branch, and Robert Nero, longtime cataloguer of Cougar sightings in the province, now retired from the Wildlife Branch. Bob Nero told us that he believed it was a Cougar. He supported our observation of such diagnostic features as the long, black-tipped tail and the heavy hind limbs and hips, noting also the relatively small head. Some of his colleagues, however, were sceptical, mainly owing to the relatively poor resolution of the image and uncertainty about the size of the animal in relation to any measurable landmark. Some suggested that the animal in the photograph could be a farm cat.

Determined to resolve the uncertainty, Don made cardboard cutouts of a smallish Cougar and a regular-sized cat. The cardboard Cougar measured 64 inches in length, nose to tail, a length gleaned from Banfield.¹ The farm cat model measured 25" (Fig. 1). With the help of Doug Head and Leon Pewarchuk, we set up the cutouts in the alfalfa field, which was by this time snow-covered, in the general area, indicated by Doug, where the live Cougar had been. The measured distance between the

cutouts and the photographer was 93 yards (Fig. 2). We photographed the cardboard cutouts from the spot where Doug had stood, hoping to prove that the animal photographed in October was closer in size to the cardboard Cougar, and thus could not have been a farm cat.

Subsequently, Cindy Little, Wildlife Information Technologist for the Wildlife Branch, encouraged by Carol Scott, performed some computer manipulations of the two photographs, namely Doug Head's original Cougar photo and the photo of the cardboard cutouts. Once the two photos were coordinated and adjusted to correct perspective (based on a critically situated fence post), it became clear that the animal in the original photograph was closer in size to the cardboard Cougar. Based on this computer work, it is clear that Doug Head had, as he has patiently maintained all along, taken a photo of a Cougar, apparently the first photograph for the province.

Acknowledgements

Thanks to Doug and Pauline Head for all their cooperation, and to Bob Nero and Carol Scott for their helpful suggestions in the preparation of this report.

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- Don and Ardythe McMaster, Box 40,
Rossendale, MB ROH 1C0



CORNELL LABORATORY OF ORNITHOLOGY'S BIRDS OF NORTH AMERICA, CD-ROM VERSION 3.

Peter W. Thayer and J. David Diehl. 2001. Thayer Birding Software, Naples, FL. CD-ROM. \$90 CDN NET. ISBN 1887148167. Available from the Nature Saskatchewan Bookshop.

Thayer's Birds of North America CD-ROM Version 2.5 was reviewed in the June 2001 issue of *Blue Jay*¹. In this review, I describe some of the differences in the recently released (December 2001) Version 3 of the Birds of North America CD-ROM. For this version, Thayer Birding Software has teamed-up with the Cornell Laboratory of Ornithology to revamp Thayer's instructional and listing birding software products in order to keep up with continuing improvements in computer technology.

Version 3 has numerous improvements in the main instructional section, which is called "eField Guide View": better photos, improved arrangement of species account information, enhanced similar species views, family plates, use of field marks in the ID Wizard, an improved bird sighting recording system and improved online help.

The only major disappointments I found in Version 3 were the exclusion of certain Version 2.5 features such as the sound options from the ID Wizard and the Avian Jukebox. The other section that has been eliminated is the World sampler. The Joy of Birding section has been replaced by direct Internet links to Cornell Lab of Ornithology, Project Feeder Watch and Thayer Birding Software sites. The Birder's Handbook section has basically stayed the same, but Bird Quizzes is much improved with the addition of 200 additional quizzes, including

ones on Christmas Bird Counts in Calgary, Saskatoon, Winnipeg and Churchill.

Improvements to the Instructional Section

Photos. Although there are fewer photos in the main instructional program in version 3 (2,675 as compared to over 3,000 in Version 2), photograph clarity has been improved by replacing 2,000 photos and having photos displayed with the newer SVGA monitor display standard.

Species account information. eField Guide View has improved the arrangement of species account information by using a field guide format with scientific and common names (in English, French, Spanish and German), order, family, identification tips (in point form), habitat and behaviour (short paragraph), photos, range and abundance maps, and sound mnemonic placed together on a single electronic page. A zoom-in feature is available for photos and abundance maps. There are quick jump links to alternate photos, sound recordings and sonograms, abundance maps, the Birder's Handbook and an Internet online guide.

Species view and family plate. The Version 3 species view shows six birds rather than two, and includes a new feature, the family plate, which allows you to view up to 12 members of a taxonomic family at a time. In the family plate, you can link to

similar or identical family description information in the Internet online guide.

ID wizard. The identification wizard has been improved by the addition of field marks such as crest/tufts, eye rings, white outer tail feathers and wing bars with a line drawing illustrating where these field marks occur on a bird. In Version 3, useful lists and quizzes can be generated from the ID wizard in addition to the photo gallery, which displays photos of all species in the final list along with the selected identification characteristics. From the photo gallery, one can play sound recordings, zoom in on the displayed photo or jump to specific species accounts in the eField Guide View.

Sighting recording system. A 'lite' version of Thayer's listing program, Birder's Diary, is included in Version 3 to replace the simple observation dialogue box found in Version 2.5. This simple listing feature contains pull down dialogue boxes for species name, location (state/province), date, and observer and a comment field (no longer limited to 255 characters). With this program, you can save your sighting data electronically and sort them by combinations of location, date, species name (taxonomic or common) and comments for generating date ascending life lists (first-time sightings of species) and sighting reports by taxonomic group and dates. This listing program accepts one observer name and does not allow one to export lists or sightings to other programs. In order to have full listing program capabilities, you will need to purchase the compatible North America or World editions of Birder's Diary Version 3.

Online help. Although there is no guided tour of Version 3 that can be printed out for easy reference, the Thayer Birding Software website provides excellent sections on common questions about software, including Version 3. After you register your copy, technical support is available by e-mail or through their toll-free number.

System requirements

The minimum system requirements for running Version 3 are Pentium 233 processor or equivalent; Windows 98, ME, 2000 Pro or XP; 64 MB RAM; 16x CD-ROM drive, 30 MB on hard drive, or 600 MB if you want all the media copied to your hard drive; and all hardware and software required to support multimedia applications. Links to websites from the CD-ROM require an Internet connection. These minimum system requirements describe a computer purchased within the past 3–4 years. They have not tested the CD-ROMs on Windows 95 or Windows 3.x, and cannot offer support to you if you are running these other operating systems. Thayer Birding Software cannot guarantee Mac users that the CD-ROM will work with Windows emulation software such as Virtual PC or Softwindows, although there are reports that some Mac users are successfully running this CD-ROM on their Macs with Windows emulation software.

This software requires that you register with Thayer Birding Software. This is important because unregistered copies stop working after 30 days. Registration protects Thayer Birding Software from software piracy but the 30-day grace period also means that you can now legally lend your CD-ROM to anyone and they can try it out for free for 30 days.

1. Thayer, P.W. and J.D. Diehl. 1998. Birds of North America CD-ROM 2.5. Thayer Birding Software. Naples, FL. Reviewed by Robert Warnock. *Blue Jay* 59: 109-112.

Reviewed by Robert Warnock,
3603 White Bay, Regina, SK S4S 7C9.
e-mail: warnockr@accesscomm.ca

IN MEMORIAM

WILLIAM HARVEY BECK, 1927-2002

C. STUART HOUSTON, 863 University Drive, Saskatoon, SK S7N 0J8



Photo by Pat Cradock

Harvey Beck was born in Yorkton on 14 September 1927. His mother was an English war bride and his parents were proprietors of a dry goods store. Harvey's abiding passion was entomology, hence he fell under the thrall of Isabel Priestly, and was one of the four high school participants at the inaugural meeting of the Yorkton Natural History Society. In the 50th anniversary edition of *Blue Jay*, Harvey reported that Mrs. Priestly was "the first adult to treat me as an equal and one of the few adults with whom, as a teenager, I felt completely at ease." He served as a director for three years, until he left in 1945 to study biology at the University of Saskatchewan.

As an undergraduate student, during the summers of 1947 and 1948, he worked for J. G. Rempel on the University's insect collections. Dr. Rempel described him as "industrious, self-reliant, ... with unusual ability and enthusiasm for the meticulous

kind of work required as a curator." Because mosquitos were believed to carry the virus of Western Equine Encephalitis, it became Rempel's priority, with Harvey's help, to collect specimens of every species of mosquito in Saskatchewan. While other people swatted mosquitos, Harvey let them land on his bare arm, studied them, and collected intact, with a vial and chloroform, those that might represent a new species.

To finance his education, Harvey spent a year at Teacher's College (then called Normal School), to gain a teaching diploma, and then taught Cree children for one year at Pemmican Portage, 1948-49. Some evenings he would walk the three miles to Cumberland House to visit with the conservation officer, the Roman Catholic priest, the store manager and the RCMP constable. The next year he taught at Huxley, Alberta, before returning to Saskatoon to complete his biology degree in 1951. While teaching school at Stinson in 1951-52, Harvey was offered a job as Assistant in biology by D.S. Rawson, department head. Due to budget cuts, he was hired as Instructor and was promoted to Assistant the following year. Dr. Rawson's letter to W.P. Thompson, University president, described Harvey as "a quiet, unassuming individual."

He catalogued the insect, mammal, and plant collections at the University and realized the need for a guide to Saskatchewan mammals. His succinct, highly successful 52-page *A Guide to Saskatchewan Mammals*, Special Publication Number One of the Saskatchewan Natural History Society, appeared in 1958. Five thousand copies were printed and constituted a printing run much larger than that of any subsequent special

publication; only six copies were left for sale by October 1975.

Field work in northern Saskatchewan in the summer of 1961 was directed towards a Master's thesis in mammalogy. The 119 specimens of 7 species, collected during 1370 trap nights, added to knowledge of mammal distribution and occupied 8 pages in *Blue Jay* 22:165-172, 1964. Harvey thought that his work showed too little promise and, to the dismay of the Biology Department, resigned from the University in April 1962.

J. D. Rempel's son Dick commented "Yes, I remember Harvey well; I instructed biology for two summers under Harvey's guidance. I recall my father's high regard and affection for Harvey, who was such a decent, informed and constructive head of the lab demonstrators in the Biology Department. Father said that everyone in the department could invariably rely on Harvey, no matter what the occasion or crisis or new development. He was extraordinarily patient, never panicked and was firm when needed." An example of this is provided by Harvey's friend, Pat Cradock. She recalls the time in the '60s when Harvey was driving to Regina and hit a pregnant cow on the road. Realizing that the cow was dead, he performed an immediate Caesarian section on the spot, just before the grateful farmer arrived to take delivery of the healthy, full-term calf.

From 1962 to 1964, Harvey instructed biology at the University of British Columbia. In 1964 he returned to Saskatchewan, as a curator at the Saskatchewan Museum of Natural History for one year, and then as an instructor at the new University of Regina, 1965-67, where he taught first year biology and supervised the laboratories. While in Regina, Harvey edited and oversaw the preparation of the illustrations by staff artists for Francis Cook's *Guide to the Amphibians and Reptiles of Saskatchewan* (1966). Harvey then moved to Winnipeg as curator at the new Manitoba Museum of Man and Nature,

1967-69. Francis Cook was at this time working on his Ph.D. at the University of Manitoba, and appreciated the help Harvey provided him throughout his western field-work, which began in 1959. Harvey was also a frequent bridge-player at his home.

Harvey's final four terms of employment were as a teacher in Alberta at Calgary (1969-72), Keyano College at Fort McMurray (1973-78), Fairview College in the Peace River area (1978-81), and Old Sun College, Siksika First Nation, near Gleichen (1981-86). The First Nations people there learned of Harvey's qualifications with St. John's Ambulance, and would call him in the middle of the night to attend to injuries.

At age 59, Harvey retired to a small house on an acreage west of Strathmore, rented from the McNeill family for nearly 16 years until his unexpected death in his home on 25 January 2002.

Harvey once told his sisters that he aimed to go through life unobtrusively. This he certainly did. His major contribution to natural history was "behind the scenes." Perhaps the foremost example was the unsung, unpaid and labor-intensive task of compiling the annual index for the *Canadian Field-Naturalist* for volumes 93 through 105, 1979-1991. This involved preparing a separate card for each entry, many of them Latin names, and then typing them in virtually perfect typescript in alphabetic order, a joy for the typesetters of the day. As Rev. Fergus Tyson said at the memorial service at St. Michael and All Angels Church, Strathmore, "Harvey was an organized and quiet man, who led an organized and quiet life."

Acknowledgements

I extend my appreciation to all those above who offered comments, and to Cheryl Avery, who went the second mile and dug out pertinent files in the University of Saskatchewan Archives, even though they had not been indexed or catalogued.

ROBERT HARRY KREBA, 1954-2001

PAUL CHYTYK, 2740 Gosworth Road, Victoria BC, V8T 3C3, KARYN SCALISE, 3019 Quinn Drive, Regina, SK S4P 2W3 and RON TILLIE, Royal Saskatchewan Museum, Regina, SK S4P 3V7



Bob Kreba was born in Yorkton on February 7, 1954. The family moved to Winnipeg the year after Bob's birth and relocated to Regina in 1958. Bob completed elementary school in Regina and attended high school in Weyburn. While in high school, Bob acquired several treasured possessions, which developed into lifelong passions for him - a pair of binoculars, a camera, a telescope, and an aquarium.

As a child, Bob sketched, read and wrote about wildlife and nature. He frequently brought home insects, snakes and injured birds that he cared for and, as someone who wouldn't allow any creature to be hurt or killed, was instrumental in passing on the respect he held for all living things to his sisters. Bob demonstrated his compassion for others as a teenager by befriending several troubled youths and encouraging them to open themselves up to the world and improve themselves. While still a student in Weyburn, he began leading field trips and recruiting prospective birders.

By the early 1970s, Bob was visiting the Saskatchewan Museum of Natural History

(now known as the Royal Saskatchewan Museum, RSM) to view the wildlife dioramas and to borrow study skins of particular bird species to learn more about their special features. His familiarity with staff and his eagerness to work at the museum turned into an offer of employment on May 17th 1976. Bob continued to work at this museum until his passing. His entire museum career was spent in the Exhibits section, although much of his work was of a curatorial nature. When he started employment, he was trained to print exhibit labels onto cardstock for incorporation into new and existing gallery exhibits. This led to training in the use of the silkscreen process for label development.

Working at the museum allowed better access to all natural history collections and brought him into close association with many other naturalists both at work and in the general public. Bob's desire to share his love of nature was expressed at the museum and through his involvement with the Regina Natural History Society (RNHS). Bob served the RNHS for many years as field trip coordinator, leading many field trips each year. He also gave slide lectures, coordinated the May Day Bird Counts and wrote articles for, and had photographs published in, *Blue Jay*. Bob served on the RNHS executive for most of the past 20 years, and was Vice-President at the time of his passing.

In 1986, a major museum gallery redevelopment was initiated. Bob worked closely with the curators and exhibits staff to develop the text panels for each gallery. The final gallery to be completed was the Life Sciences Gallery. This is where Bob's input at the RSM is most evident, especially

in the large, open dioramas. His largest contribution was answering questions by curatorial and exhibits staff and contractors relating to appropriate content, supplying reference material and direction to artists and foreground specialists, and providing the bird and nature sounds in each diorama, through personal field recording. These world class wildlife dioramas would not have been developed to the current level of quality without his input.

Bob had a special ability to open people's eyes to the beauty of nature. It brought him as much pleasure to point things out to visitors as they strolled past open dioramas in the RSM as it did to point things out to people on a field trip.

Bob loved birding and birdwatching. He had searched out every conceivable place for birds near Regina. He co-authored *A Bird Finding Guide to the Regina Area* in 1985 with his friends Chris Adam, Tom Riffel and Bob Luterbach. However, Bob was just as content to spend hours looking through a scope differentiating the subtle plumage differences between a third winter Herring Gull and a third winter Thayer's Gull. He could explain the differences in the greatest detail as if he was describing the personality differences of two friends. Birds were his greatest delight, not to add to a list, but to understand, appreciate and share with others. He took meticulous notes of his observations, wrote and published articles, compiled provincial bird records for *American Birds*, and produced the Field Checklist of Saskatchewan birds.

Bob was a giving man. He had few possessions, but what he had, he shared without pause. His generosity was subtle and unassuming. Few knew that on a modest income he sponsored a foster child in a developing country and donated regularly to conservation organizations and social causes. His arrival to meet a friend was always accompanied with a gift: whether it was a book found in a garage sale, a jar of

his famous homemade tomato sauce, or a piece of dreadful tasting candy that even the storekeeper warned him not to buy, there was always a gift for the sheer sake of enjoyment, of sharing and experiencing something together.

Bob was always late: a frustration for the person waiting, but treasured time for the others that he was helping, the friend's cat he was feeding, the volunteer work he was completing, or the field trip he was organizing...all just moments before seeing you.

Bob was kind and sensitive; he wore his feelings and fears openly for others to embrace or push away. He was honest; he could be trusted with the greatest of confidences and he did not hesitate to call a "spade" a "spade". He was truly sympathetic, able to appreciate the pain and sorrow of others, empathizing where others were quick to dismiss. He was argumentative when he wanted to teach or to learn. He always looked frumpled, but that was part of his charm. He had a dry sense of humor whose subtlety was so ingenious that most were unaware of the wit befallen them. Bob had unusual bad luck; it seemed to be drawn to him. If something could go wrong, it usually happened to Bob.

Throughout his life he was extremely generous to his sisters, and family was very important to him. Bob was married briefly to Alison Sapara and they had one child, James, born in 1980. He was a devoted father and had infinite patience in answering James' questions on any topic and in helping James with school projects.

Bob played a leading role in organizing his parents 50th Wedding Anniversary celebration on November 2, 2001, just one week before he passed away in his home on 15th November, leaving his family with many cherished memories of Bob's generosity and kindness. We share in the loss of one of nature's treasures, the loss of our dear friend Bob Kreba.

MYSTERY PHOTO

JUNE 2002 MYSTERY PHOTO



The photograph shows a number of holes about $\frac{3}{16}$ of an inch in diameter in a clay bank at Claybank SK on 15 August 1998. Some had pendant, tubelike projections of dried mud, about $\frac{3}{4}$ to 1.5 inches long. Access to the hole in the bank was from the lower end of this tube. Who made these holes and what are they for?

Photograph and text submitted by Paul Geraghty.

ANSWER to the March 2002 MYSTERY PHOTO



Although several people wrote that they thought that the mystery object was possibly a slime mold, it is actually a congregation of FUNGUS GNAT LARVAE (Order Diptera, family Mycetophilidae). Each larva is about 1 cm long, legless and transparent except for a black spot at the head end. The migratory columns are called “snake worms” on account of their appearance and movement, but the reason for the aggregation is not known. The larvae feed on fungi and decaying vegetable material. Some aggregations have been reported to be 4-5

m long, 5 cm wide and 1 cm thick! The adult flies often resemble gnats or midges, and occupy dark, damp places. Their hind legs are adapted for leaping and some species simulate death when disturbed. Thanks to entomologist Dr. Bob Byers for identifying the larvae. Further information was obtained from Imm’s General Textbook of Entomology.

The editors would like to thank Teresa Dolman for this mystery photo and preparing the answer for the March issue.



WHAT’S GOING ON HERE?



Photo courtesy of Weaselhead Preservation Society, Calgary

I think the photo is a typical accipiter/pileated encounter. Pileated Woodpeckers escape raptors, especially accipiters, by dodging around a tree trunk. The predator can’t fly around the tree as fast as the woodpecker can hitch around, so once the

woodpecker is on the tree and aware of its attacker there isn’t much chance it will be captured. In fact, the woodpecker often becomes quite noisy and aggressive, and may attempt to drive the raptor away. There are published examples of pileateds successfully routing Sharp-Shinned and Cooper’s hawks. During my research on Pileated Woodpeckers, I and my field assistants were fortunate to observe several interactions with raptors. On one occasion a Northern Goshawk was seen chasing a flying pileated, which barely got to a tree trunk ahead of the hawk. Once on the tree, the woodpecker easily dodged the goshawk, which soon gave up and left the scene. However, the predators win their share of encounters, as goshawks were responsible for most pileated deaths in the study. It’s likely that in most of those cases the hawk surprised the woodpecker, which never knew it was being attacked until it was too late.

- Rick Bonar, Weldwood of Canada Ltd., 760 Switzer Drive, Hinton, AB T7V 1V7



Dragonflies resting out of the sun on a cliff bank at Onefour, Alberta on July 31, 2000.

Dan L. Johnson

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